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TERRITORY OF NEW GUINEA.

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Studies of the Native Population of the East Coast of New Ireland.

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[title page]

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Notes on the Study of the Native Population of the East Coast of New Ireland.

114 From time to time during the past twenty years various writers in official and scientific publications have drawn attention to the depopulation that is alleged to be taking place in many parts of Melanesia, including the Territories of Papua and New Guinea governed by Australia—the former as an integral part of the Commonwealth, and the latter under Mandate from the League of Nations. The decline has been attributed to various reasons, and numerous methods for arresting it have been suggested. The authorities do not always agree as to the relative importance of the processes of destruction and restoration outlined for consideration, nor do they produce for examination any comprehensive statistical data on which conditions of the past can be compared with the position to-day. This is especially marked in the discussions on the Mandated Territory of New Guinea, which appear to have been based either on the tables of population appearing from time to time in the Annual Reports (both German and British), or on special investigations of a preliminary nature for which no reliable material has been available for comparing present results with the conditions that existed in past years.

648 659 We hear from persons of long residence, however, that the inhabitants of certain districts now number considerably less than they did in former times, and in some cases these statements are supported to a certain extent by the population tables, compiled from time to time by District Officers on patrol; in other cases so brought to notice, however, the population in some districts appears to be stationary, and in others to be definitely increasing. During the last two or three years most of the missions operating in the Territory have sent yearly returns of births and deaths to the Department of Native Affairs, and these have assisted the Administration to keep in touch with conditions in the areas concerned.

648 It is the expressed policy of the Government of New Guinea to do all things possible to further the moral and material welfare of the natives of the Territory, and for some years the departmental officials charged with the execution of this policy, e.g., the staff in Native Affairs, District Administration, Agriculture, Health, and other departments, have extended their organizations as widely as the means at their disposal would allow, to meet the ever increasing obligations undertaken by the

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648 Government. Activities for the moral and material welfare of the native peoples embrace a wide range of administrative functions, such as the penetration, pacification and control of hostile districts, the institution of law and order, the establishment of schools, enumeration of the population, the inspection and protection of native labour, medical patrols, the mapping of morbidity areas, the training and appointment of native medical assistants, village hygiene, the establishment of hospitals for treatment, the training of natives in agriculture, the inspection of native plantations, and innumerable duties of a general nature. In this work the Government is assisted by the various missions in the Territory.

Among the problems of native welfare facing the executive organization of the Administration, the question of depopulation probably stands first. While so much is being done in a general way to cope with the variety of factors on which welfare is dependent and to eradicate the more readily ascertainable causes of diminution, the time is ripe for a definite and comprehensive attack on the whole problem. Our District Staff includes a number of young officers, who have had the advantage of an anthropological training in the Sydney University. They are stationed in outlying parts of the Territory as Patrol Officers, and, since their work keeps them constantly in intimate touch with the people of their divisions, a great deal of valuable information should be forthcoming.

648 659 Before launching a definite programme for the treatment of the population conditions, however, we must first determine whether depopulation is actually taking place, where and to what extent it is taking place, and, if possible, why it is taking place.

What is required, therefore, is a series of demographic surveys spread over the Territory for the purpose of ascertaining the conditions of the population, locating areas where depopulation exists, and gathering data showing its extent and the factors that are contributing to it. Possible experimental restoratives should then be considered before an expensive programme of treatment is actually laid down. Once the condition in any particular area can be set out statistically in terms of causal factors, the nature and possible extent of which can be indicated to the executive organizations whose duty it is to apply practical measures, the scheme of attack could be directed along definite lines of a social, economic, religious or physiological character, according to the requirements of the campaign.

121 464 With the object of devising a concise method suitable for investigations of this nature, I visited Kavieng district early this year, and, with the approval of His Honour the Administrator, made a survey among

the inhabitants of the east coast of New Ireland from Kaviéng to Karu, a district for many reasons eminently suitable for the study in question. In the first place, it had always been, and still is, one of the most important centres in the Territory for the recruiting of native labour. Scattered along its coast are many of the most flourishing plantations in New Guinea, the owners of which depend on local natives for the bulk of their labour supply—a dependence specially marked just now owing to the depression in the copra market, which compels industrial organizations to observe the greatest economy. The immediate advantage to the planter of local labour over labour recruited from other parts of the Territory is the saving of recruiting fees, passage moneys, transport and incidental costs through his being able to secure the natives he requires from the villages around his plantation, and the advantages to the native population of being able to place its available workers on some plantation near their villages are obviously so great that everything should be done to encourage conditions that make it possible. A further inducement to the studying of the population in this region is the position that has lately arisen owing to an increasing European interest in local lands for agricultural purposes, resulting during the last few years in numerous applications for leaseholds, of which many were being held in abeyance until an inquiry could be made into the future land requirements of the native inhabitants. In German times considerable areas of land were alienated and freehold grants given to European planters, who utilized these rights to such advantage that here and there along the coast are numerous productive and exceedingly valuable coco-nut plantations. The land in the district is suitable for the cultivation of coco-nuts. It is traversed from end to end by a road good enough for motor traffic. It has a large population, the climate is excellent, and there are several anchorages in convenient centres where small steamers are able to pick up copra—the very conditions to encourage European settlement. Now arises a question which cannot be determined until a close survey has been made of the population itself; i.e., whether in the interests of the natives and their future requirements any further land should be alienated, a point of especial importance since the natives themselves now own coco-nut groves, which they are being encouraged to extend, while at the same time they are receiving instruction from officials of the Department of Agriculture in the planting and maintaining of such properties.

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Just as in matters of land and labour, so in the question of trade, the natives are brought closely into contact with the European population. It is to the European that the native sells the products of his coco-nut groves, his surplus native food, pigs, fish, fruit, fowls, eggs and in some places trochas-shell, snail shell and bêche-de-mer, for which he receives in return money, rice and other European foods, and trade

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goods. Each year this economic bond between European and native residents grows stronger, and the two racial interests become more interdependent.

The native inhabitants pay taxes to the Government, and keep 150 miles of road between Kavieng and Karu in proper order for motor traffic, each village group being responsible for its own section.

These are some of the principal developments in the material life of the people as a result of European settlement. On the cultural and social life, chiefly due to mission influence, additional far-reaching changes have taken place, and these increase as the missions expand. Two mission organizations are now operating in the district—Roman Catholic and Methodist. The principal Roman Catholic stations are at Lemakot, Munuwai and Lemasong, and those of the Methodist Mission are at Maiom and Pinigindu.

The progress of European organizations has transformed the life of the natives, whose indigenous institutions have either died out or, like the *malagans*, are tottering to extinction with scarcely a hope of surviving the present generation. The people of coming generations will have to fit into the social and religious fabric being woven for them by the driving force of European industrial, religious and administrative control now thoroughly established in the district.

With the object of making the survey in question, I left Rabaul on Saturday, 23rd March, 1929, and on Monday, the 25th March, commenced work in the villages between Kavieng and Karu. Completing the preliminary census on the 11th May, I came back to Rabaul to tabulate my notes, and, this done, returned to the east coast villages, where I remained from the 1st June until the 26th June, investigating special phenomena indicated by the tables.

Thus the work was divided into two parts, firstly, an enumeration of the population in their villages, and, secondly, an investigation of the figures together with social and religious features seemingly of value to the issue.

A specimen of the form used in recording the names and demographic features of the inhabitants is appended. (Appendix 1.) In regard to the actual method, however, a generalized explanation is necessary.

The inhabitants live in small family settlements along the coast-line, excepting mountain and forest groups, who reside in the bush. Each settlement has its own small plot of land, clumps of coco-nut trees, and two or three living houses. They are scattered along the whole coast-line a few yards or 100 yards or so apart, according to the political boundaries and space available. A group of several family settlements forms a political division, which is administered by the Government with the aid of local natives of influence and repute, who are appointed Luluai and Tul-tul and officiate under the supervision of the District Officer according to authority set out in the Native Administration

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Ordinance. The political division, therefore, is the unit of government. In the centre of the settlements thus grouped together is the local government rest house (House Kiap), where official business is usually conducted. Throughout the paper I shall call political divisions "villages."

As the settlements themselves are scattered at irregular intervals in long straggling lines (sometimes a mile or more in length), I found it more convenient in collecting my data to follow the usual practice and call every one to the House Kiap for interrogation.

It would have been better, however, had I examined the various families where they lived and recorded the information alongside each house. This course would have taken up much more time, but it would have enabled me to see and talk to old, sick, and infirm people who had not been able to assemble at the House Kiap—people, who, though few in numbers, might have had important information for the records. During my investigation, information regarding such absentees was supplied by the local Luluais and friends of the missing ones. From the point of view of method, therefore, it is important that everyone should be seen and interrogated personally in the place where he lives.

The people were given notice of my coming, and invariably they were ready for interrogation the moment I arrived in a recording centre, i.e., the village House Kiap. Nearly everyone understood "pidgin English", but nevertheless competent interpreters, together with the more intelligent of the older men of each village, stood by to assist. The reason for the work and its relation to administrative activities for native welfare were explained in each village, and the importance of exactitude was stressed. Men and women were then called up and interrogated in turn. In each case, the birth-place of the husband and wife was entered for the purpose of investigating systems of inter-village marriage. Ages of men, women, and children could only be estimated. Males and females said to have passed the reproductive age are recorded as "old". Children apparently having passed the age of puberty appear in the age group as fourteen years and over. Opposite each man's name are all the women he has at any time married, and in line with each of these wives are the names of her male and female children, entered in order of birth. Those absent at school or work appear in a special column with the necessary additional particulars. The children of each marriage who have died were given by name (friends assisting where the memory of the mother was weak), but in the columns of deaths they appear as follows ♂ ♀ males and females dying during lactation, ♦ ♦ males and females stillborn, ♂ ♀ males and females dying after lactation. Special note is also made of first-born children who have died during lactation.

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125 Adopted children appear in a special column, together with the
126 necessary particulars as to sex, age, clan, persons adopting and relationship between them and the children adopted. In the last column of all, remarks of a general nature are recorded. Thus every child, excepting orphans and adopted children, is shown in the same line as its real father and mother, i.e., the male and female socially recognized as the parents.

124 Among an intelligent people like the inhabitants of New Ireland, with cautious methods of inquiry, it should be a relatively simple task to record accurate demographic data. I found, however, that the information I received going down the road had to be amended a great deal when I checked it on the way back. The most frequent errors were in the records of motherless children, whose names were occasionally given in line with stepmothers instead of own mother, i.e., instead of naming dead mothers and their children in line, informants omitted the name of the dead mother and named the children in line with their stepmothers. This faulty information did not arise out of name prohibitions (for where these existed others present called the tabu name), but simply through carelessness on the part of informants whose attention relaxed as they became bored with the inquiry. Baker*, in his work on Espiritu Santo, says—"It might be that a census with any pretensions to accuracy could not be taken without seeing each person individually, and, indeed, I think that this would be so in most communities. But any one who knows the Melanesian is aware of the intense interest he takes in his relationship to other members of his village. I found that they delighted in giving me the information I required, and when I was quite weary, after more than an hour's session, they would be as interested as ever." In New Ireland, I found every one greatly interested in the inquiry, and willing to give information, nevertheless a great deal of incorrect material crept in. The collection of demographic material in this Territory, however intelligent the people may be, should be made, when possible, in family habitations, and each person should be interrogated. The recorder should have sufficient time afterwards to check his material as widely as possible. The method adopted by some investigators of estimating the issue and survival rates of past generations by genealogical tables would be very unreliable in New Ireland, where information even of the present generation is frequently given inaccurately.

128 The enumeration completed, I worked out statistical tables and went back to the field where I inquired into the various phenomena indicated, extending the investigation as much as possible to conditions that appeared relevant to the inquiry, e.g., social organization, economic conditions and culture generally.

* Baker, J. R. *Journal of Royal Anthropological Society*, Vol. LVIII., 1928.

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As I have already pointed out, the people of the East coast of New Ireland live in small family settlements along the seashore, while the bush groups live in the forest and mountain ranges running parallel with the coast. A number of these settlements form a village. The village is the unit of administration and each one has its government representative who facilitates the work of the District Officers. The senior native representative is known as Luluai, and his assistants Tul-tul: the Tul-tuls vary in number according to the importance of the village. Each village has in addition a native trained in the government hospitals to administer simple treatment to the sick; he is known as the Medical Tul-tul, and he generally has a small building at his disposal, in which drugs are kept and the sick are treated.

Between Kavieng and Karu there are 68 political or village divisions. Their names and distance from Kavieng are as follow:—

Name of Village Plantations in Capital Letters.	Distance from Kavieng.
Kulangit	At Kavieng
Bagail	,,
Mungal	,,
Omo	,,
Maiom	Near Kavieng
PANAPAI	4½ miles
Papliang	
Bobsi	
Kapliman	
Kaselok	
KASELOK	
Putput	
WALUS	
ULUL	20 ,,
Nono	
Ngavelus	
Lovong-ai	
KAPSU	25 ,,
Losuk	
KATU	28 ,,
Mangai	
Livitua	
Laowan	
Vongararum	
Paruai	
Lakura ranga	
LAKURAFANGA	37 ,,
BAIA	39 ,,
Nonapai	
Sali	
Lamekot	
LAMEKOT	42 ,,
Fongalava	
FONGALAVA	44½ ,,
Luburua	
LUBURUA	46 ,,
Lakurumau	
LAKURUMAU	48 ,,
MARAMAKAS	50 ,,

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Name of Village Plantations in Capital Letters.	Distance from Kavieng.
361 FILIBA	52 miles
MUNUWAI	
621 Munuwai	
103 Laraibina	
Roman Catholic Mission	
Lugagun	
LUGAGUN	55 „
Madina	
MADINA	
Luaupul	
FISOA	62 „
Fisoa	
KAFKAF	64 „
Kafkaf	66 „
Fatmilak	69½ „
Limalaua	
BOLAGILA	74½ „
Tandis	75½ „
Limba	
LIMBA	77 „
Yendat	
Lang-inia	78½ „
LASSU	
Lassu	
Amba	
Letatan	
LEMASONG	87½ „
Lemasong	
Roman Catholic Mission	
Konnos	
Konobin	
Methodist Mission	
Pinigindu	
PINIGINDU	96½ „
KATEMBONG	97 „
Tokirot	
KATENDAN	99 „
Katendan	
Labbuso	
KIMADEN	104 „
Malom	107 „
Lasigi	
Watkana	
Kanagnusgnus	
Livinko	
KANDAN	114 „
Kandan	
Limbin	
Kantebu	
Bumbuwe	120 „
Lemaris	122 „
Kanambu	124 „
Watlamo	
Panatgin	126 „
Dabinot	
Ri'om	128 „
Katenda	
Bulu	130 „
Logon	137 „
Kanam	140 „
Karu	147 „
KARU	147 „

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Scattered along the coast between the villages are the coco-nut plantations owned and worked by Europeans. They also appear in the list above-mentioned in capital letters. 361

During the German régime, efforts to enumerate the natives living between Kavieng and Madina were still being made in 1901-1902, and in that year the Government called a meeting of tribes, who two years before were hostile, and induced them to select chiefs to assist in local administration. Sub-districts were delineated and an enumeration was made, 5,118 people being recorded between Kavieng and Lugagun. This number did not include the forest and mountain people, as it was intended later on to amalgamate these with the coastal groups. In 1906-1907, however, the successful organization of unions between the two stocks appears to have taken place. What is meant by this is not quite clear, but, from what I gathered during the inquiry, most of the mountain people were induced to build temporary villages on the coast, and fusion between the stocks was encouraged in every possible way. Certain villages on the coast now belong to mountain people, who live in them for short intervals, and almost everywhere more or less fusion between the two stocks has taken place. 659 619 [161]

A great civilizing factor in those days was the coastal road, which in 1902-3 was extended to Fisoa, and in 1903-4 had reached Pinigindu. During 1911-12 no effort was spared to make it suitable for motor traffic. After military occupation in 1914 this road was extended to Kimaden, and during the present civil administration it has been carried on as far as Karu. Its existence has had a tremendous influence on the development of the people of the district, by whose labour, of course, it has been built and kept in repair. 491

The people of the area investigated are divided linguistically into three main groups, two coastal languages, one extending from Kavieng to Fatmilak, and one from Fatmilak to Karu, and bush languages which appear in purest form in the Limalaua group of people who live in the bush and on the coast near Fatmilak. According to information received from natives, the Kavieng-Fatmilak language is divided into the following dialectical groups:— 197

Kavieng to Losuk.
Mangai to Livitua.
Laowan to Luburua.
Lakurumau (said to be different from the others).
Munawai to Fatmilak.

The languages from Fatmilak to Karu are grouped as follow:— Limalaua (a bush language) is said to extend to Yendat and possibly to Lemo, Bimun, Panaras, Patlinger and other villages to the west.

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197 The next group (a coastal language) is spoken at Tandis, Limba, Lang-inia, Lassu, Amba.

Then the group spoken at Lemasong, Konnos and Konobin, which is said to extend to the West coast villages—Lamau, Lambak, &c.

The next group is said to extend from Pinigindu to Bulu, and through the Lelet plateau villages across to Mesi and other villages on the West coast, the dialects differing slightly.

Another dialect is found at Logon, and extends past Karu into the Namatanai district.

184 614 616 In the social organization there are two main divisions, which agree geographically with the coastal linguistic distribution. From Kavieng to Fatmilak the people are divided into multiple totemic clans with matrilineal descent; from Limalaua to Karu dual organization with the Eagle and the Hawk representing the totems of the clans. The Karu organization is slightly complicated, as will appear later.

614 In both divisions the clans are sub-divided into smaller groupings, each one of which is in some way associated with ancestral ghosts *masolei* or *maselei* (Kavieng to Fatmilak) *misili* (Limalaua to Karu).

The multiple clans represented in the social organization of the people living between Kavieng and Fatmilak are as follow:—

Clan (*erit-bung* or *pambong*).	Totem (*mani* or *manu*).	——
A—Monga Kamade	Bungbunga (Hornbill) ..	Fatmilak
	Bangbanga	Luaupul
Moga Kamade	Babanga	Madina
	Bangabanga	Lakurumau
Mogon Kamari	Awoi-iang	Ngavelus
B—Monga Nuas	Balus (Blue Pigeon)	Fatmilak
Monga Nungas	Valus	Lugagun
Mogong Ge	Valus	Ngavelus
C—Monga Muna	Minungak (Eagle)	Fatmilak
	Manungak	Lauaupul
Moga	Munungak	Madina
D—Monga Soluba	Arigaum (Hawk)	Fatmilak
Maribe	.. ..	Kafkaf
Maiba	Regaum	Lakurumau
	Tegaum	Luburua
Miwa	Tegum	Lamekot
	Tekaum	Ngavelus
E—Monga Kala	Harok (red bird nest in ground)	Fatmilak
Kale	Karuk	Lauaupul
Moga Kela	Aiuk	Lakurumau
	Iok	Fongalava
Kala	A Kua	Lamekot
	Guok	Nonapai
Mogong Kali	Kuok	Ngavelus
	Gok	Livitua
F—Monga Tiring or Tiri-in au (Frigate bird)	.. ..	Fatmilak
Tirin	.. ..	Lugagun
Tivinguru ..	.. ..	Lakurumau
	Raula	Fongalava

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Clan (*evit bung* or *pambong*).	Totem (*mani* or *manu*).	
G—Monga Maf	Mangaf (Keet)	Kafkaf
H—Monga Titian	Tutut (Swamp Pheasant) ..	Madina
I—	Kikiak (blue bird fisheater)	
J—Mongo Ke	Kanai (Gul—said to come from New Hanover)	
K—Mogo Momoi-ia	Eara (Blue Parrot)	Lugagun
Naga	Wai-ia	
Wai-ia	.. .. ..	Lamekot
Nega	A Kat	Livitua
L—Mogang Kalp	(Probably same as E)	
M—Moni Tak	A Wut (Small blue bird)	
N—	Tiu (Small bush bird, Fish-eater)	
O—Mogo Tivunalua ..	Maisu (Coconut-eating crab)	
P—Moga Mokon	Kai-au (Bush fowl)	

The clan name is known as *evit bung* sometimes *pambong*; the totem name is *mani* or *manu;* while the social sub-divisions are known as *masolei, maselei* or *misili*. The clan and totem names vary slightly throughout the district according to dialectical changes, e.g. *harok*. Fatmilak becomes *iok* at Fongalava, while *wai-ia* Lugagun becomes *kake* at Livitua; some of these variations appear in my notes, but there are doubtless others that I have not recorded.

582 616

The clans are exogamous. Between Limalaua and Karu inclusive the clansmen of the Eagle marry the clanswomen of the Hawk, while the clanswomen of the Eagle marry the clansmen of the Hawk. In Karu, however, where it is difficult to distinguish the clans and sub-divisions, owing perhaps to culture contact with mutiple clan people of the Namatanai district, which has confused the local grouping and broken the dual organization, I found instances of marriage between people of the same main social group. It was said that the people are divided into two main groups Malom with the Eagle as totem and Aragu with the Hawk as totem. Groups said to be sub-groups of Malom are Liongo, Hobon, Saut, Karu, Kogo, Kunimi and Kubiomara; groups said to be sub-groups of Aragu are Umalik, Hono, Lodogon, Kubu, Kuton and Nalagos. I was informed that members of the same sub-group could not intermarry, but I found on examining the marriages of the people now living that this expressed rule has been broken several times. The breaches are as follow: In the Aragu group Umalik has married Hono and Kuton, Lodogon has married Kubu, and in the Malom group Liongo has married Hobon, Hobon has married Karu, Saut has married Karu. I found no marriages, however, between a man and woman of the same sub-group. The language spoken at Karu and Logon is said to extend to Kanavit in the Namatanai district.

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582 614 616 Within the multiple groupings between Fatmilak and Kavieng marriage within the clan is forbidden, and in some places, I was informed, the multiple clans are definitely divided into two inter-marrying divisions. Even the natives themselves told me on more than one occasion that "such and such" a clan was "brother" to "such and such" a clan. My notes of the marriages that have actually taken place, however, do not confirm this division into two sets of inter-marrying clans. Until further evidence is available, therefore, I am inclined to think that the so-called brotherhood of clans may be due to a genealogical relationship between the members of certain clans which debars marriage between them. In Lugagun district, for instance, I was told that the multiple clans are divided into the following inter-marrying divisions: 1.—F, D, C, A, E, H; 2.—G, B, K, J.

582 614 Between Lugagun and Lamekot, however, which is the district referred to, I found in my table of marriages between people recorded on the census the following breaches of this supposed rule:—

B married G.
D married A, F, E, C, H.
C married D, F, H, E, A.
A married D, F, C, H.
G married B.
E married C, F, H, D, A.
F married D, E, A, C.
H married D, C, F, E, A.

In Fatmilak F and H and B and J were said to be "brother" groups, that is to say, F could not marry H and B could not marry J. In my census of that village neither of the groups H, J is named at at all. On the completion of the census I was informed that names entered under F (Monga Tiri-in) comprised many people of H, and the names under B comprised J as well. (Kanai is said to be an introduction from New Hanover, and in other villages its group name is known as Mogo Ke.) In Madina G and B are said to be "strong brothers," and in my census of that village no marriage between the two groups has been recorded.

The suggested inter-marrying divisions of the clans, however, is a matter of great importance and should be investigated intensively. I have mentioned it to Dr. Hortense Powdermaker, who is at present working among the dual people at Lassu, and possibly she may be able to go into the matter before she leaves the district.

In general, throughout the Kavieng-Fatmilak district, clan exogamy is observed, but occasionally, especially as one approaches Kavieng, marriages within the same social group are observed. In Kavieng

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itself several instances were recorded, one even between people of the same subdivision. The people say that such marriages are "bad". They appear to have been contracted in the past as well, and, as far as I could learn, the persons so united do not appear to suffer any social disability on that account.

Marriage is regulated by the clan system, that is to say, a man must marry out of his own clan. It is regulated still further by kinship. In most of the villages, marriage with the father's sister's daughter or the mother's brother's daughter is strictly prohibited, and in some places this prohibition is extended even to the daughters of classificatory father's sisters and mother's brothers, and almost everywhere men may marry the widow of a mother's brother, the daughters of classificatory cross-cousins, the brother's widow and the wife's sister. In one or two places, however, marriage with the daughters of the real cross-cousins was said to be permitted, although such marriages rarely took place.

I was able to investigate pedigrees in a few villages. The kinship terms used by the persons recorded in these pedigrees, together with fragmentary notes on the marriages that had taken place or were said to be permissible, are given hereunder. Owing to lack of time, however, these particulars are not complete, and I am submitting them merely for purposes of record, as they might be of use to future investigators with more time to spend in the investigation of social organization.

The first pedigree was taken at Luburua. The terms of relationship used by the various persons recorded are as follow:—

Tamang.—Father.
Nang.—Mother.
Natuk.—Son.
Imuna.—Father's sister; father's sister's husband; husband of father's sister's daughter; mother's brother's wife.
Imuna.—Sister's daughter's husband; wife's mother's brother; wife's mother.
Ifina.—Father's sister's son; mother's brother's son; sister's husband; wife's father.
Kaisuna.—Father's sister's daughter; mother's brother's son (woman speaking); father's sister's daughter's son; mother's brother's daughter.
Mogetena.—Mother's brother's sister's son.
Inena.—Husband's father; husband's mother.
Tinafin.—Sister.
Ifandevin.—Brother's wife (woman speaking); husband's sister.
Palun.—Sister (woman speaking); brother.
Tinamean.—Sister; brother (woman speaking).

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582 In this village it was said that the cross-cousin marriage is permitted, and one man recorded in the pedigree definitely told me that, if he liked, he could marry a woman shown in the pedigree as the daughter of his mother's brother. Marriage with the mother's brother's daughter's daughter is also permitted according to my informants, but they stated that marriage with the mother's brother's widow is prohibited. Unfortunately, I was only able to record one pedigree in this village.

601 In Lakurumau one pedigree was taken, and the terms of relationship used are as follow:—

Tamang.—Father; father's brother.

Nang.—Mother; father's brother's wife.

Aliksugu.—Son; son of father's brother's son; brother's son.

Kogok.—Father's sister; brother's son (woman speaking); wife's mother.

Mogorugu.—Father's sister's husband; wife's brother's son; father's brother's daughter's daughter; sister's son; son of mother's brother son; mother's brother.

Fagu.—Father's sister's son; husband of father's brother's daughter; sister's husband; brother's wife (woman speaking) and husband's sister; mother's brother's son.

Dinafingu.—Father's brother's daughter; father's brother's son (woman speaking); sister.

Diagu.—Father's brother's son; brother; sister (woman speaking).

Kaiasgu.—Wife of father's brother's son; brother's wife; father's sister's daughter; mother's brother's daughter.

Aiamung.—Wife's father; father's sister's daughter.

Aratesegu.—Wife; husband; daughter of mother's brother's daughter.

Nenagu.—Husband's father; husband's mother.

It was stated here that the names of the following relations may not be spoken:—Sister, wife's mother, sister's husband, wife's brother, wife's sister. The cross-cousin marriage is definitely prohibited.

One pedigree was recorded in Madina, and the following relationship terms were used by the persons investigated:—

Mago or *Mama.*—Father; father's brother.

Naga or *Nang.*—Mother.

Ngalik.—Son.

Fagu.—Father's sister's son; husband of father's brother's daughter; son of wife's father's brother; mother's brother's son; wife's brother; sister's husband.

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Fafnagu.—Father's brother's son (woman speaking); father's brother's daughter; wife's brother's wife; sister; brother (woman speaking). 60/

Agasugu.—Son of father's brother's daughter; son of mother's father's brother; mother's brother's sister's son and daughter; wife's brother's son.

Nai-ia.—Father's mother; father's father; mother's mother; mother's father; son's son; daughter's son.

Mogorugu.—Mother's brother; sister's son and daughter (this term appears to be used as well as Agasugu).

Ninagu.—Wife of sister's son; husband of sister's daughter; husband's father and mother; son's wife; wife of wife's brother's son.

Kogo.—Mother's brother's wife; husband's sister's son; daughter's husband (woman speaking).

Alismara or *Karasigu.*—Mother's brother's daughter.

Kogastunan.—Father's sister's son (woman speaking).

Aravin Surugu.—Wife.

Arate Surugu.—Husband.

Nimugu.—Wife's mother; wife's father; husband's mother; son's wife; husband's father; daughter's husband.

Aimung.—Daughter's husband.

Duagu.—Sister (woman speaking).

Dasigu.—Brother.

In this pedigree the names of wife's mother, wife's father, sister's husband and mother's brother's wife were avoided by the informants.

Two pedigrees were taken at Limalaua, a bush village. The terms of relationship used are as follow:—

Namo.—Father; father's brother.

Nangak.—Mother.

Nangak Rung.—Father's brother's wife.

Poirang.—Son.

Poirung.—Daughter.

Nambura.—Father's sister; mother's brother's wife.

Nambura Ruang.—Brother's son (woman speaking); husband's sister's son.

Tatak.—Father's sister's husband; father's mother's brother's son; mother's brother.

Talo.—Wife's brother's son; son of father's sister's son; sister's son.

Talau-Rung.—Sister's daughter; the wife of the father's brother's son's son.

Kogup.—Father's sister's son; wife's mother.

Lorung.—Wife of father's sister's son; mother's brother's wife.

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[60] *Papa Ruang.*—Son of husband's mother's brother; husband's sister's husband; elder brother (woman speaking).

Kogule.—Father's sister's daughter; mother's brother's daughter; wife's mother.

Muge.—Mother's brother's son (woman speaking); father's sister's son (woman speaking); son of father's sister's daughter; son of wife's mother's father's sister; husband of sister's daughter; daughter's husband (woman speaking); wife's brother; sister's husband's son and the mother's father's sister.

Namogo.—Husband of mother's brother's daughter; son of wife's father's sister; husband of father's sister's daughter; son of wife's mother's brother.

Magambutung.—Wife; daughter of father's sister's daughter; daughter of mother's brother's daughter.

Leruang.—Husband; son of mother's mother's brother; son of mother's father's sister.

Anmula Ruang.—Wife's father; daughter's husband; husband of brother's daughter.

Mela Ruang.—Son of mother's brother's daughter; son of the wife's mother's father's sister; son of the mother's mother's brother; sister's husband; wife's brother.

Luap Tuang.—Wife's sister's husband.

Papa (sometimes *Papa Ruang*).—Brother; sister (woman speaking); brother's wife's sister (woman speaking).

Pava.—Brother's wife; husband's brother; wife's sister; sister's husband (woman speaking).

Nemula.—Husband's sister; brother's wife (woman speaking).

Aia.—Father's father; father's mother; son's son; mother's father; mother's mother; wife of brother's son; wife of sister's son; husband's mother; son's wife; husband's father; husband's father's brother.

In one case where a man has married the widow of his younger brother, and now looks after her two children, the younger brother is now referred to by his children as Aia, and their adopted father as Mamo.

Aia Rang, a term sometimes used towards the sons of the sister's sons and daughters.

Aia Rung, a term sometimes used towards the daughters of sister's sons and daughters.

[595] 582 Polygynous unions with two sisters are permissible. Marriage between cross-cousins, however, is definitely barred. The natives say they would rather hang themselves than break this rule. It is permissible to marry the daughter of the mother's brother's daughter or

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the father's sister's daughter, although this does not often take place. Marriages with the daughters of classificatory cross-cousins, however, frequently occur. In one pedigree a man is married to the sister of his mother's brother's wife; this woman calls her husband's mother's brother Pava instead of Eia or Aia, which would be the usual term. Formerly polyandrous unions took place in this village, but have been abandoned since the missions became established.

The next pedigree was taken at Letatan. The terms of relationship used are as follow:—

Mamu.—Father; father's brother.

Nango.—Mother.

Peruang.—Son; brother's son; wife's sister's son.

Perung.—Daughter; brother's daughter; wife's sister's daughter.

Nambura.—Mother's brother's wife; husband's sister's son; father's sister; sister's son's wife; husband's mother's brother.

Tate.—Mother's brother; son of husband's father's sister; son of wife's mother's father's sister; husband's sister's husband.

Talau.—Sister's son; wife of mother's brother's son; husband of mother's brother's daughter; wife's brother's wife.

Inot.—Mother's brother's son; father's sister's son.

Kogup.—Father's sister's daughter; mother's brother's daughter; father's sister's son (woman speaking); mother's brother's son (woman speaking).

Namugu.—Husband of mother's brother's daughter.

Mogambutang.—Wife, daughter of father's sister's daughter.

Lai Ruang.—Husband.

Mela Ruang.—Wife's brother; sister's husband; husband of wife's sister; son of father's sister's daughter.

Anamuli Rang.—Wife's father.

Kogili Rung.—Wife's mother.

Kogili Rang.—Daughter's husband (woman speaking).

Mega Tuang.—Wife; sister's husband.

Papa.—Brother; sister (woman speaking).

Pava Rung.—Brother's wife; wife's sister; sister's husband (woman speaking).

Nemula.—Brother's wife (woman speaking); husband's sister.

Mugi Rang.—Sister's daughter's husband.

Eia.—Father's father; father's mother; mother's father; mother's mother; son's son; wife's brother's son; wife's brother's daughter; daughter of mother's brother's son; son of mother's brother's son.

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601 The term Rang is affixed to designate a male, and Rung to designate a female.

582 601 Letatan is a bush village. The cross-cousin marriage is strongly prohibited, but marriage with the daughter of the mother's brother's daughter, the wife's sister and the brother's widow is permissible. The [551] names of the wife's mother, wife's brother, father's sister's daughter and mother's brother's daughter were avoided by the persons recorded in the pedigree.

601 The next pedigrees (2) were taken at Konnos, a village of bush people. The following terms of relationship were used:—

Tamang.—Father; father's brother.

Nanga.—Mother; father's brother's wife; wife of mother's brother's son.

Nungu Sigik.—Son.

Nungu Inek.—Daughter.

Inasong.—Mother's brother's wife; husband's sister's son; wife of sister's son; husband's mother's brother.

Nambangit.—Mother's brother; father's sister's husband.

Noiang.—Sister's son; sister's daughter.

Kogup.—Mother's brother's son; father's sister's son.

Tang.—Son of mother's brother's son; brother; wife's sister; brother's wife; sister (woman speaking).

Ninugu.—Daughter of mother's brother's son; sister; brother (woman speaking).

Tagik.—Sister's husband; wife's brother.

Nungu Rumbu.—Wife.

Nunguru Masik.—Husband; sister's daughter's husband; daughter of the husband's sister's daughter.

Namugu.—Wife's father; daughter's husband; brother's daughter's husband; mother's brother's daughter's husband; wife's father's brother; wife's father's sister's son; husband of father's sister's daughter; son of wife's mother's brother.

Nungu Waru(e), Nungu Goko(y), or Evaru.—Wife's mother; daughter's husband (woman speaking); mother's brother's daughter; mother's brother's son; (woman speaking) father's sister's daughter; father's sister's son (woman speaking).

Tambugu.—Father's father; father's mother; mother's father; mother's mother; son's son; brother's daughter's son; son of father's sister's son; daughter of father's sister's son; daughter of mother's mother's brother's daughter.

Nangena.—Brother's wife (woman speaking); husband's sister.

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Nimugu.—Father's sister; daughter of mother's brother's daughter. 601

Nenang.—Son's wife; husband's mother; husband's father.

Navaru.—Mother's brother's son (woman speaking).

Tangamuia.—Sister's daughter's daughter; mother's mother's brother.

In the pedigree it was noticed that the name of the mother's brother's wife was avoided and also the wife's mother. Marriage with the mother's brother's daughter is definitely prohibited, but marriage with the wife's sister or the brother's widow is allowed. There are probably other regulations in regard to marriage that I have not recorded. Before the mission became established, definite sex relations were permitted between the men and women of small groups, who were described as being "friends" of one another. [551] 582 837

The next pedigree was recorded at Kenobin, a few miles below Konnos. These also are village people. The terms of relationship used are as follow:— 601

Tamang.—Father; father's brother; mother's sister's husband.

Nanga.—Mother; mother's sister; father's brother's wife.

Ungu Zigik.—Son; sister's daughter's husband; the husband of the husband's father's brother's daughter.

Guinek.—Daughter; the daughter of the husband's father's sister's daughter.

Inagong.—Mother's brother's wife; husband's sister's son; sister's son's wife; husband's mother's brother.

Tata or Nambangit.—Mother's brother; mother's father's brother's son (woman speaking).

Notang.—Sister's son; sister's daughter; son of father's sister's son; daughter of father's brother's daughter; son of father's brother's daughter.

Pawugu.—Father's sister's son.

Guwaru.—Father's sister's daughter; wife's mother; daughter's husband (woman speaking).

Namugu.—Husband of father's sister's daughter; wife's father; daughter's husband.

Ninugu.—Wife of father's sister's son; sister; husband's sister's husband; sister's daughter's daughter.

Amuia.—Mother's mother's brother (woman speaking).

Tagik or Gurumasik.—Sister's husband; wife's brother.

Gurumasik.—Husband; husband of father's brother's daughter.

Guru Rumbu.—Wife.

Tang.—Father's brother's son; father's brother's son's wife.

Nangenz.—Husband's sister; brother's wife (woman speaking).

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551 During the taking of this pedigree the sister's name and her presence
543 were strongly avoided. Other terms avoided were the father's sister's daughter, father's sister's son's wife, the mother's brother's wife, the wife's mother, and a woman avoids her brother and his name; the wife's brother and the wife's father do not appear to be avoided.

837 In this village it was said that small groups of men and women
572 were friendly to one another even to the extent of exchanging wives. This is now dying out with the coming of mission influence. The last group of the kind consisted of the following men and their wives:—Langiaun (male), Sagarin (female); Lile (male), Lubun (female); Marangas (male), Kesiga (female); Eangulin (male), Narong (female). Each man had access to each woman, and the groups lived happily together. Marangas then went to work on the gold-fields leaving Kesiga with his group friend Eangulin. After a short time, Eangulin found he liked Kesiga better than his wife, Narong, so he gave Narong to the Luluai of the village, Lega—who did not belong to the group at all—and stole Kesiga. Narong afterwards died. When Marangas returned from the gold-fields, and found that Eangulin had stolen Kesiga and did not want to give her up, he was very angry, and withdrew from the group altogether, marrying another woman.
582 The group then broke up. It was stated in the village that marriage with the mother's brother's widow is allowed, but that marriage with the daughter of the father's sister's daughter is prohibited. There was one instance of marriage with the deceased wife's sister. I omitted an inquiry as to marriage with the daughter of the mother's brother's daughter.

601 The next pedigree was taken at Pinigindu, and the following relationship terms were recorded:—

Tamak.—Father; father's brother; mother's sister's husband.

Nanga.—Mother; father's brother's wife; mother's sister.

Emanda Karak.—Son.

Nimugu.—Father's sister; brother's son (woman speaking); father's sister's daughter's daughter.

Nak.—Father's sister's husband; wife's brother's son; husband of father's sister's daughter's daughter.

Tata.—Mother's brother.

Noiak.—Sister's son; sister's daughter.

Nasong.—Mother's brother's wife; husband's sister's son.

Koko.—Father's sister's daughter; mother's brother's son (woman speaking); daughter of father's sister's daughter's daughter.

Masikogup.—Father's sister's daughter's husband; wife's mother's brother's son.

Wepaguna or *Kogup.*—Mother's brother's son.

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Parugu.—Father's sister's son; father's sister's daughter (woman speaking). 601

Wenen Aulit.—Mother's brother's son's wife; husband's father's sister's son.

Metak.—Mother's brother's son's son; father's father's sister's son; mother's brother's son's son's wife; brother; brother's wife; husband's brother.

Weton.—Mother's sister's son; sister (woman speaking).

Ramazik.—Mother's sister's daughter's husband; wife's brother; sister's husband.

Inugu.—Mother's sister's daughter; sister; brother (woman speaking).

Nenak.—Wife of mother's sister's son's son.

Namugu.—Wife's father; daughter's husband.

Rulom.—Wife's mother; daughter's husband (woman speaking).

Nisok.—Wife.

Randirak.—Husband.

Nangini.—Brother's wife (woman speaking); husband's sister.

Paguña.—Mother's brother's daughter (woman speaking).

Tumbugu.—Father's father; father's mother; mother's mother; mother's father; son's son.

A woman, for whom the term Koko was used, married the brother of the speaker and then became Metak to him, the term used for brother. Marriage with the cross-cousins and their daughters is strictly prohibited, but marriage with classificatory cross-cousins and their daughters is allowed, and also marriage with the mother's brother's widow. 582

The next pedigree was taken at Karu, but, as it was difficult to get information, the material is scanty. The terms used are as follow:—

Magu.—Mother.

Barukanu.—Son.

Orong Kanu.—Mother's brother; mother's brother's daughter's husband.

Subun Tanu.—Sister's son; wife's father's sister's son.

Lenasong.—Mother's brother's wife; husband's sister's son.

Lowuk.—Mother's brother's son; father's sister's son; mother's brother's daughter's son; mother's father's sister's son.

Koko.—Mother's brother's daughter; father's sister's son (woman speaking).

Imuk.—Wife's father; daughter's husband; son's wife; husband's father.

Wowup.—Wife's mother; daughter's husband (woman speaking).

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601 ***Rok*.—Brother; sister (woman speaking).**
Matok.—Brother's wife; husband's brother.
Sagok.—Sister; brother (woman speaking).
Ramisik.—Wife's brother; sister's husband.
Suk or *Oitanu*.—Wife.
Suk.—Husband.
Enak.—Husband's mother; son's wife (woman speaking).
Egik.—Brother's wife (woman speaking); husband's sister.

582 In this pedigree one man is married to two sisters who are both living. The cross-cousin marriage is said to be definitely barred. A man is permitted to marry his mother's brother's widow, his brother's widow, his wife's sister, or the daughter of his mother's brother's daughter. In this village there are several instances of marriage between people of the same clan.

586 587 In almost every village on the East coast of New Ireland there are numerous men and women who have been divorced and re-married several times. The priests of the Roman Catholic Mission hold that the facility with which these divorces and re-marriages take place reacts on the issue rate of the community.

614 162 The clan distribution of the population between Kavieng and Karu is shown in the following tables of adults and children of both sexes. (Appendix 2.)

614 As I have already stated, each clan is divided into sub-groupings associated in some way with the ghosts of the dead. Every person, therefore, has his clan *evit-bung* or *pambang* (north of Fatmilak), *batamit* (south of Fatmilak), his totem, *mani*, and his sub-division, *masolei*, *masele* (north of Fatmilak), *morali* or *misili* (south of Fatmilak). The sub-divisions bear the names of pieces of land, caves, capes, mountains, rocks, prominent points on the sea-shore, reefs, rivers, waterfalls, or other natural phenomena, characteristic of the spot from which the sub-division is said to have originated, and in addition they bear the names of and are associated with mythical pigs, snakes, sharks, or other animals connected with the site that bears the group name. A large number of the *masolei* sites consist of fertile land, which is planted from time to time by the members of the *masolei* sub-division or by people of other sub-divisions permitted to do so. Quite a number [778] of the sub-division locations, however, are barren, and without value. Such places are regarded simply as sacred spots to which the members of the sub-divisions associated with them have rights against others.

Between Kavieng and Fatmilak there are many villages in which the clans have merely one or two sub-divisions apparently of little importance. In Kavieng itself I found the same sub-divisional name occurring in more than one clan. In places like Lakuramau and

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Fatmilak there are numerous sub-divisions which appear to have an important bearing in matters relating to land. The place of the sub-division in the life of the people between Kavieng and Fatmilak is a subject for further investigation. 614

However small its place in the groups north of Fatmilak, the sub-division of the people between Limalaua and Karu plays a most important part in social organization, culture and economic and land transactions. It constantly crops up in the mythology, and appears to be the unit of all important social phenomena. The sub-division may be an earlier form of social organization than the dual grouping into which the numerous sub-divisions are now divided. In the bush group of Limalaua I was given vague information to the effect that the sub-divisions of the eagle *minungak* are also sub-divisions of *ilok*, a black bush bird, and that the sub-divisions of the hawk *yarangam* are sub-divisions of *kugigama* an owl, but I had neither the time nor the opportunity to discover exactly what this meant.

During land inquiries held by me a whole series of stories was revealed, connected with the mythical origin of some of the sub-divisions, the members of which are now widely dispersed, some of them far from the villages where the groups are said to have originated. When land has to be bought from natives, claimants spring up from every direction, many of them far away from the land in question. The stories also account for certain migratory movements of the members of the sub-divisions, and shed an interesting light on such factors as inter-marriage and fission in the dispersal and distribution of social groupings. 773 614

The social groupings, therefore, to which an individual has definite obligations are his sub-division, his clan, his totem, his place of residence and his village or political unit, each of which plays an important part in regulating his material and cultural life. 614 621

Between Fatmilak and Karu the land appears to be owned by the sub-divisions or sub-groups, and each member of a sub-group appears to have vague individual rights to certain portions of the land of his group. He has, for instance, the right to allow any person, either of his own or the opposite clan, to make a garden on his land, which privilege, on the death of the holder, is subsequently inherited by his sister's children and own children. He has also the right to allow any person to plant coco-nut trees or any other useful trees on the land, and these trees may also be inherited as above. No person, however, appears to be able to dispose of any land without the consent of the other members of his sub-group, and, when payment is eventually made for the land purchased, all persons sharing in the benefits of the land share also in the purchase money. This is paid to the sub-group owners, and by them distributed according to their obligations. 423 614 [428]

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423 People enjoying the use of land belonging to a sub-group different from
614 their own invariably make presents of food and coco-nuts at different times to the owners of the land.

614 So widely distributed sometimes are the members of the sub-groups, that it is no uncommon thing during the investigation of a land-matter to find claimants living in villages a great distance from the ground in question.

428 In one pedigree investigated at Madina a man of that place named Arakai, inherited the ground and personal belongings of his father, who had no sister. Arakai also inherited the ground and belongings of his mother's brother, Aulim, although Aulim had a son. The property inherited from Aulim, however, was shared with the son. Usually before he dies, a man makes known his wishes regarding the disposition of property. Arakai, who has no children, has already [562] told every one that on his death Tapua, the son of his sister, is to have his land and property. Women also appear to inherit ground.

In Letatan, a bush group living below Lassu, it was said that property is inherited by own children and sister's children.

During a land investigation at Lasigi and Konagnusgnus payment for land sold to a European was claimed by surviving members of the sub-group of the deceased land-owners. In all these cases claimants proved genealogical relationship. Shares in the payment were also claimed by the children and grandchildren of the dead men and the grandchildren of their brothers (these deceased land-owners had no sisters).

423 In a land investigation held at Lassu for the purpose of buying a
432 piece of land that the natives had agreed to sell, the following information was collected.

614 The area involved was owned by eight different sub-groups, each of which held one portion. A portion known as Pari was owned by the sub-group Pari; Langhalu was owned by Pagali sub-group; Kanawi was owned by Samkila sub-group; Roroi was owned by Roroi sub-group (the survivors of which lived at Langinia); Panula was owned by Sililia sub-group; Dangkolong was owned by Mauga sub-group; Mimilnat was owned by Solemba sub-group, and Lanluminandigo was owned by Tupila sub-group.

The surviving members of these sub-groups claimed payment. Some of them lived in villages many miles away from the ground, but all of them proved genealogical relationship with persons about three generations back to whom the various portions then belonged. Other claimants belonging to sub-groups different from those said to be the owners, and many belonging even to the opposite clan, then appeared, contending that, as their ancestors or parents had been permitted by the early owners to plant food or economic trees on various lots within

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the portions concerned—a privilege which they and their descendants would now lose—they too were entitled to some compensation. A discussion of the position was held in the presence of the principal men of the villages concerned, and the methods of payment were arranged as follow:— 423 432 614

The recognized principal man of each sub-group was to receive the full amount of payment for the portion sold. This was to be distributed by him among the members of the sub-group; they in turn would then share it with the members of other sub-groups and the members of the opposite clan, who by the sale had been deprived of the privileges granted to their ancestors and parents by the former owners.

During another investigation made at Fatmilak into the distribution of moneys paid by the Government some time ago for the purchase of land in that district, I found confirmation of the rules laid down at the Lassu discussion. The full amount of purchase money had been divided by the principal men among the surviving members of the sub-groups owning the land sold; each of these persons in turn had fulfilled the obligations incurred (gifts of garden land, &c.) by the earlier owners. For this purpose payment of a share of the money received was made to each of the members of the other sub-groups and people of the opposite clan, who by the sale of the ground had been deprived of the privileges granted to their ancestors and parents.

In all of these transactions the children of a man shared with the sister's children.

A further distribution on similar lines will take place at Madina when the Madina plantation land is eventually paid for. The ownership of this land was investigated by me, and the following information was recorded. This should be checked by the District Officer when the purchase is being made:—

MADINA LAND.

Portion Tanore—Belongs to clan Haruk, sub-group, Panawotlas. Principal men: Milalang of Madina; Kamat of Fatmilak; Rombui, female of Fatmilak. In this transaction it is said that Milalang will distribute the purchase money among the Madina members of the Haruk clan who are entitled to it, and the two Fatmilak members of the same clan. These people will then share the money with other persons entitled to compensation.

Portion Panabakbak—Belonging to Mangaf clan, sub-group, Pailik. Principal men: Agot of Madina; Pitilot of Lugagan; Mamoka and Bawas (both of Madina who will distribute purchase money among the persons entitled).

Portion Monariba.—Belonging to clan Arigaum, sub-groups, Tabik and Mabu. Principal men: Kunak of Tabar and Tamela of Madina. In this case Kunak being absent Tamela will receive the purchase money, and will distribute it as required.

Portion Panagaramut—Belonging to clan Adau, sub-group, Panalile. Principal man, Bato of Madina, who will receive the purchase money and distribute it.

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423 Portion Nosi—Belonging to clan Balus, sub-group, Lamis. Principal man, Arkai of Madina and later of Laraibin, who will receive the purchase money and
432 distribute it according to custom.

614 Portion Porokalaman—Belonging to clan Babanga, sub-group, Savinu. Principal man, Lamani of Madina, who will receive the purchase money and distribute it in accordance with custom. In this case the Luluai of Luaupul and Arakai of Madina are entitled to a share as compensation for gifts of ground made by the original owners to their ancestors and parents, the Luluai of Luaupul being the son of the sister of Lombu, the last owner of the ground. Lombu, before he died, permitted the father of Arakai to plant and use part of the ground.

Portion Seladara—Belonging to Mununga k clan. Principal man, Kauavek of Madina, who will distribute it among the people entitled. In this case, two women of Lugagun share in the purchase money.

Portion Lemagaf—Belonging to clan Arigaum. Names of principal men not given.

Portion Naberabera—Belonging to clan Balus. Names of principal men not given.

The last two portions belong to people of Luaupul, who were not present at the inquiry, and regarding whose ownership the people of Madina were unable to give me particulars.

142 Physically the people of the East coast are of medium height, and robust build. They are woolly-haired and brown-eyed; the skin colour varies from light to dark brown, many being almost black; usually the cheek bones are prominent; in many cases the nose is concave and deep-rooted below prominent brow ridges, but a straight or convex nose is frequently seen. There is little prognathism. Many of the men and women are distinctly pleasant faced. Usually the hair is [302] bleached with lime, and worn fairly short in well-combed frizzy mops. In the vicinity of Kandan I saw bald-headed old men wearing neatly made wigs of human hair twisted into short ringlets. There are many [143] fair-haired people with brick-red skin who were said to have been born thus, and two or three cases of true albinism were found.

226 The coastal people fish with spears, nets and lines. In many places they go out into deep water in canoes, and catch sharks by the noose and rattle method that has been described before. Shark fishing expeditions are attended with considerable magical preparation. Representations of sharks appear in the carved portions of the canoe. Small fish for bait are caught secretly at night "so that sharks will not know what is threatening them." No one but the fisherman sees this going on. The operation involves certain sacrifices on the part of those engaged in it, such as food tabu, keeping away from women, &c. The expedition starts at break of dawn, before any one else is awake. The canoe men watch their opportunity and shoot out through the breakers. They make their way right out to sea looking for timber and drift wood washed out by the rains. Here small fish gather together in large numbers and attract the sharks. The rattles are sounded and the sharks thinking it is the noise made by sea birds

3: Chinnery G, E-5 (1929) 1931 OM10 New Ireland OM10

attacking shoals of fish come near to take their share. The canoe-men throw in their fish bait to lure the sharks within range of their loops of cane, and then they catch them, and after knocking them on the head haul them into the canoe.

Small gardens are made wherever fertile ground can be found, and in one or two places there are sago swamps where sago is cultivated and reserved for times of dry weather and food shortage.

In olden days trading was actively carried on between some of its coastal villages and Tabar. Nowadays the coastal and bush people barter with fish and taro, pigs, &c.

A shell money currency is used for trading and ceremonial purposes. It consists of smooth flat discs strung on fibre strands. At Kandan this is known as *levene*. One kind *levene da lolot*, a small red shell money, is made in the islands north of Kavieng and traded down the road; another *levene do liklik*, a small white shell money of lesser value, is made in the vicinity of Lemasong and Pinigindu. On the Lelet Plateau a different shell money *levene dasilok* occurs. It is of great value locally. Nothing was known of its origin, and there is relatively little of it left. When they showed it to me, I recognized it as the red shell money used in the D'Entrecasteaux group of Papua where it is known commonly as *sapi-sapi* and *bagi*. Similar shell money also occurs in the British Solomons. It probably found its way into the district during the "Blackbirding days" of olden times when many natives from this coast were recruited and taken to work on the cane-fields of Queensland. One or two of the survivors were met in the villages, still hale and hearty despite their age.

In this area there is still another kind of shell money *levene bungabung* made from white shell, the discs being larger than the other forms. The origin of this is also unknown.

The record of my enumeration of the population was handed to Mr. Charles H. Wickens, Commonwealth Government Statistician and Actuary, for consideration. His comments thereon are sub-joined—

The three tables which are appended have been compiled from investigations made by E. W. P. Chinery in the villages of the East coast of New Ireland, and provided a mass of data which might be profitably availed of by those wishing to make an intensive study of local conditions in New Guinea.

The first table is in respect of the components of population, and indicates by males and females the conjugal condition of adults, the number of children and adopted children and the number of village people who were absent at mission schools or at work outside the village.

The second table deals with the issue and survival of children of a number of unions in each village, and indicates the mortality of children during the lactation period (approximately two years after birth) and up to the time of the investigation, and number of children that were born per union and the number that survived per union. The mortality of first-born children is also shown.

3:Chinnery G, E-5 (1929)1931 OM10 New Ireland OM10

128 The third table deals with the fruitfulness of unions, classifying unions where no issue has occurred under the heads of "newly married," "husbands working away from village," "husband or wife dead," or "wife still young," the balance being classed "apparently sterile." In all classes, other than this last, issue is probable at a subsequent date. In further columns the fruitful unions are classified according to the number of issue from one to ten, and the average issue and average survival per fruitful union is given. Particulars of masculinity of births, infantile mortality, issue dying, issue surviving and population divided into adults and children are also given. Columns showing the number of females at reproductive age and the number of persons who are aged, complete this table.

128 163 The acceptance of the issue rates for comparative purposes must be made with reservations, because the ages of the parties to unions and the length of time the union has existed or may exist are unknown quantities, whose individual values will certainly vary very greatly and of which the average values will probably vary from village to village.

The average issue per union for the East coast of New Ireland was 2.0, of whom 1.6 survived the lactation period and 1.3 survived to date of inquiry. The figures for average issue per union varied from 1.1 in the village of Kulangit to 4.3 in Kanagnusgnus; for survival of lactation period per union from 0.9 in Kantebu and Bumbuwe to 3.1 in Kanagnusgnus; and for survival to date of inquiry per union from 0.5 in Konobin and Lemaris to 2.1 in Kanagnusgnus.

The average issue per fruitful union varies from 1.6 in Kulangit to 4.3 in Kanagnusgnus and the survival to date of inquiry per fruitful union from 0.8 in Panatgin to 2.3 in Madina. The average issue per fruitful union for the whole area covered by the inquiry was 2.7 (survivals to date 1.7).

1. NEW IRELAND, EAST COAST.—POPULATION.

Village Group.	In Village.													Absent from Village.							Total Population.		
	Married.		Widowed.		Adults Unmarried.		Children under 14.		Adopted Children.		Total in Village.			At Mission or School.			Working.						
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Per cent. of Total Population.	Males.	Females.	Per cent. of Total Population.	Per cent. Married.	Males.	Females.	Total.
Kulangit	12	14	3	2	4	0	14	6	..	3	33	25	58	..	..	..	5	..	7	..	38	25	63
Bagail	28	32	4	2	14	..	13	17	..	..	64	51	115	1	..	..	20	3	16	30	85	54	139
Mungai	15	15	1	3	6	1	9	7	1	2	32	28	60	2	..	2	11	4	19	52	46	32	77
Opao	48	48	10	6	21	6	26	22	..	..	105	82	187	9	2	8	16	3	8	66	130	87	217
Malom	19	22	6	4	7	1	13	12	..	..	44	39	83	6	1	6	13	1	13	57	63	41	104
Papilang	15	16	1	3	6	1	4	5	..	..	26	25	51	2	2	5	14	..	20	15	42	27	69
Bobat	12	12	2	1	4	2	2	6	..	1	21	24	45	..	..	..	4	2	11	50	25	26	51
Kaplilman	17	21	4	3	9	1	13	11	1	2	46	38	84	6	1	6	17	7	20	70	69	46	115
Kasolok	18	19	4	3	6	1	13	8	..	..	41	31	72	6	3	10	6	1	7	28	53	35	88
Putput	18	18	..	2	5	..	13	7	1	..	37	27	64	1	..	1	16	2	21	18	54	29	83
Nono	17	18	2	4	5	1	9	7	..	1	33	31	64	3	2	6	10	1	13	18	46	34	80
Ngavelus	16	21	..	5	3	1	6	7	..	1	25	35	60	4	1	6	14	2	19	50	43	38	81
Lovong—Al	29	33	5	9	11	3	25	28	..	4	70	74	144	3	1	2	16	1	10	47	89	76	165
Losuk	16	19	3	11	9	1	12	6	1	..	41	37	78	6	..	6	12	3	15	46	59	40	99
Mangai	21	28	7	4	13	3	5	15	..	..	46	49	95	6	..	3	15	1	18	31	65	50	115
Livitua	27	29	4	9	11	5	15	10	..	..	57	53	110	4	7	7	24	..	16	12	85	60	145
Laowan	24	26	3	9	3	1	15	13	..	..	45	49	94	5	..	4	12	1	11	30	62	50	112
Vongararum	25	27	2	10	4	4	11	14	2	1	44	56	100	4	1	4	9	1	8	40	57	58	115
Farnai	22	28	2	3	9	5	18	17	4	3	55	51	106	2	1	2	9	..	7	33	66	52	118
Lakurafanga	10	11	3	..	4	2	6	15	1	..	24	28	52	2	1	4	15	..	21	20	41	29	70
Nonapai	18	19	2	6	10	1	24	15	..	..	54	41	95	..	1	..	7	..	6	14	61	42	103
Bali	15	15	1	4	14	2	9	7	..	..	39	28	67	..	..	..	8	1	11	22	47	29	76
Lamekot	26	31	3	5	8	2	10	16	..	1	47	55	102	12	4	12	13	..	9	4	72	59	131
Fongalava	25	28	2	5	9	1	12	11	..	2	48	47	95	4	3	6	11	..	9	45	63	60	113
Luburua	11	15	3	5	10	4	13	13	..	..	37	37	74	1	..	1	11	..	12	4	40	37	86
Lakurumau	46	57	11	11	11	4	32	32	..	..	100	104	204	2	1	1	33	2	14	50	135	107	242
Munuwai	40	44	4	13	18	6	17	26	..	..	79	89	168	6	..	3	21	..	10	19	106	89	195
Larai Bina	25	26	1	6	6	3	11	14	1	..	44	49	93	..	..	..	13	1	13	23	57	50	107
Lugagun	34	39	6	4	4	1	21	28	1	2	66	74	140	8	4	6	29	6	18	42	103	84	187
Madina	39	50	3	4	11	5	34	34	..	..	87	93	180	4	1	2	31	5	16	52	122	99	221
Luaupul	36	46	2	10	5	6	15	26	1	1	59	89	148	..	..	..	22	2	13	54	81	91	172
Fisca	40	47	1	14	9	5	26	17	1	2	77	85	162	5	1	2	36	2	18	21	118	86	206
Kafkaf	22	24	5	3	5	2	21	9	1	3	54	41	95	1	..	1	10	3	11	3	65	44	109
Fatmilak	67	73	2	15	22	12	32	40	4	2	127	142	269	10	6	4	25	2	8	48	162	149	311
Limalaua	24	32	3	6	1	1	16	20	..	..	44	59	103	1	..	..	20	..	16	40	65	59	124
Tandis	27	30	4	7	5	2	15	15	..	3	51	57	108	2	..	1	22	1	17	21	75	58	133
Limba	34	40	3	6	7	3	20	16	2	1	66	66	132	6	2	4	20	1	13	27	92	69	161
Vendat	13	17	1	4	4	1	15	11	..	2	33	35	68	..	..	..	7	..	9	42	40	35	75

I. New Ireland, East Coast. Population *continued.*

Village Group	In Village												Absent from Village						Total Population		
	Married		Widowed		Adults Unmarried		Children under 14		Adopted Children		Total in Village										
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total	At Mission or School			Working						
														Males.	Females.	Per cent. of Total Population.	Males.	Females.	Per cent. of Total Population.	Per cent Married	Males.	Females.	Total
Lang-lata	25	28	0	6	2	3	21	18	1		58	55	113	5	1	4	32		15	9	95	56	141
Lasu	48	55	8	9	9	5	45	32	3	2	111	103	214	3	1	1	57	4	15	43	151	108	259
Amba	20	21	2	3	5	3	16	6	3		46	33	79	3	1	4	12	1	13	53	61	35	96
Letatan	23	25	2	7	3	2	19	17			47	51	98	2	1	3	13		11	30	62	52	114
Lemasong	45	55	15	3	4	4	25	32	1	3	90	87	177	3	4	7	20	2	14	48	122	93	215
Kanaes	42	43	4	8	9	2	27	14	2	2	84	77	161	1	..	1	12	..	6	16	100	77	177
Konedin	22	22	15	6	5	..	7	1	2	..	51	32	83	..	..	..	6	1	7	50	57	33	90
Pinginda	67	73	18	13	15	5	25	20	..	..	125	111	236	..	..	..	9	..	3	55	134	111	245
Tekirot	16	18	5	7	6	1	17	14	1	2	45	42	87	..	..	..	7	2	9	43	52	44	96
Katendan	27	30	4	5	6	1	12	13	..	..	49	49	98	..	..	..	9	1	9	40	58	50	108
Lambuse	37	38	9	11	6	..	13	14	3	..	68	63	131	..	..	..	14	..	9	..	82	63	145
Malem	55	64	7	11	10	1	29	30	6	1	107	107	214	3	1	1	25	2	11	44	135	110	245
Lasigi	30	37	3	6	3	2	11	18	2	..	49	63	112	1	1	1	4	5	7	100	54	69	123
Watkana	59	66	5	12	8	0	23	11	..	..	95	89	184	..	..	..	10	4	11	21	114	93	207
Kanagnusgnus	6	7	1	3	1	..	8	4	..	1	16	15	31	..	..	..	4	2	16	50	20	17	37
Livinko	24	24	2	10	3	2	11	5	..	2	37	43	80	4	..	4	7	1	8	25	48	44	92
Kandan	14	16	6	5	2	3	6	6	1	..	28	30	58	2	..	2	8	..	11	25	38	30	68
Limbin	47	52	9	6	12	1	13	19	..	4	81	82	163	1	..	1	15	2	9	41	97	84	181
Kanteby	24	24	..	5	2	..	9	6	4	..	39	35	74	..	..	..	9	2	12	33	48	37	85
Bumbowe	22	21	2	7	7	2	7	7	1	2	39	41	80	..	..	..	5	..	5	..	44	41	85
Lemaris	16	18	7	4	6	0	5	2	1	..	35	24	59	..	..	..	2	2	6	..	37	26	63
Kanamba	34	34	12	3	7	0	10	11	4	1	76	49	125	..	..	..	32	..	1	..	78	49	127
Watlamo	25	27	2	2	5	0	9	9	..	..	41	38	79	1	..	1	7	4	12	..	49	42	91
Panatgil	22	23	7	3	5	1	8	6	1	3	43	36	79	..	..	..	8	1	10	..	51	37	88
Dabinot	18	10	6	2	3	2	7	8	2	1	36	32	68	..	..	..	8	..	10	..	44	32	76
Silom	15	17	3	3	2	2	5	6	..	..	25	24	51	..	..	..	6	2	13	..	31	30	61
Katenda	16	18	1	5	5	0	9	9	..	..	31	32	63	..	..	..	5	..	7	..	30	32	68
Buiu	15	15	3	3	6	1	14	8	..	..	38	27	65	..	..	..	3	..	4	..	41	27	68
Logon	25	25	6	4	13	1	14	26	1	1	59	57	116	3	..	3	5	2	8	..	67	59	126
Kanam	16	17	2	7	3	0	11	8	0	1	32	33	65	..	..	..	9	2	14	..	41	36	76
Kiru	27	20	7	8	20	1	16	17	1	0	71	55	126	1	..	1	7	..	5	..	79	55	134
Total District of New Ireland East Coast	1,830	2,047	302	408	566	144	1,053	981	62	63	3,753	3,643	7,396	168	55	3	925	101	12	31	4,846	3,799	8,645

3:Chinnery G, E-5 (1929)1931 OM10 New Ireland OM10

2. NEW IRELAND, EAST COAST.—ISSUE AND SURVIVAL OF UNIONS.

Village Group.	Number of Unions.	Issue.			Issue per Union.	Issue died during Lactation.				Issue survived Lactation.			Issue Survived Lactation per Union.	First Born Children died during Lactation.			Issue died to Date.				Issue Survived to Date.			Issue Survived to Date per Union.
		Males.	Females.	Total.		Males.	Females.	Total.	Per cent.	Males.	Females.	Total.		Males.	Females.	Per cent.	Males.	Females.	Total.	Per cent.	Males.	Females.	Total.	
Kulangie	24	20	7	27	1.1	1	1	2	7	19	6	25	1.0	..	..	..	4	1	5	18	16	6	22	0.9
Bagail	41	31	26	57	1.2	1	2	3	5	30	24	54	1.2	..	2	..	4	5	9	15	27	21	48	1.0
Mungai	30	21	15	36	1.2	2	1	3	8	19	14	33	1.1	2	..	..	4	3	7	19	15	8	23	0.7
Omo	81	63	57	120	1.4	6	14	20	16	57	41	100	1.2	2	1	15	6	7	13	35	51	37	88	1.0
Matom	52	29	25	54	1.6	1	1	2	3	28	24	52	1.6	..	6	14	12	21	33	27	31	36	87	1.6
Papilang	19	14	11	25	1.3	3	2	5	20	11	9	20	1.0	3	1	26	3	3	6	24	23	22	45	1.4
Bobst	18	12	18	30	1.6	3	3	6	20	9	15	24	1.3	1	1	20	3	7	10	33	11	6	17	0.9
Kapliman	26	27	23	50	1.9	7	7	14	28	20	16	36	1.3	1	1	20	7	7	14	28	5	11	16	0.6
Kaselok	57	25	21	46	1.7	7	6	13	28	18	15	33	1.2	3	3	30	10	7	17	34	18	15	33	1.2
Putput	28	25	21	46	2.0	2	4	6	13	23	17	40	1.7	2	1	16	10	8	18	39	15	13	28	1.2
None	26	30	22	52	2.0	14	4	18	34	16	18	34	1.3	4	1	23	15	10	25	48	15	12	27	1.0
Ngavelus	29	29	28	57	1.8	5	5	10	18	21	23	44	1.5	3	0	17	12	9	21	38	14	19	33	1.1
Lovong-ai	52	85	59	144	2.7	23	11	34	23	62	48	110	2.1	10	2	26	34	17	51	35	51	42	93	1.7
Lesuk	34	44	49	93	2.7	11	24	35	37	33	25	58	1.7	4	8	40	21	35	56	60	24	14	37	1.0
Mangai	42	37	39	76	1.8	12	8	20	26	25	31	56	1.3	5	2	24	10	13	23	42	18	26	44	1.0
Livitua	62	70	40	110	2.6	17	8	25	22	53	32	85	2.0	6	1	23	20	15	44	40	41	25	66	1.6
Laowan	36	40	33	73	2.0	11	8	19	26	29	25	54	1.5	5	3	36	19	15	34	46	21	18	39	1.1
Nongararum	41	37	44	81	1.9	11	13	24	29	26	31	57	1.3	7	4	31	16	17	33	40	21	27	48	1.2
Paruai	52	42	47	89	2.7	10	13	23	25	32	34	66	2.0	3	4	28	16	21	37	41	26	26	52	1.3
Lakurafanga	19	25	27	52	2.7	3	3	6	11	22	24	46	2.4	1	2	20	12	8	20	38	14	19	33	1.7
Nonapai	30	47	35	82	2.7	5	..	5	6	42	35	77	2.6	1	1	7	10	14	24	29	37	21	58	1.9
Sali	44	24	21	45	2.0	5	6	11	24	19	15	34	1.5	..	2	25	8	9	17	37	16	12	28	1.2
Lamekut	46	46	45	91	1.9	1	3	4	4	45	42	87	1.8	1	1	9	10	14	24	26	36	31	67	1.4
Fongalava	34	35	30	65	1.9	3	7	10	15	32	23	55	1.6	1	1	8	7	12	19	29	28	18	46	1.4
Luburua	23	37	35	72	3.1	6	10	16	22	31	25	56	2.4	3	2	24	10	14	24	33	27	21	48	2.1
Lakuramun	87	120	101	221	2.5	23	26	49	22	97	75	172	1.9	8	6	24	55	41	96	43	65	60	125	1.4
Munowai	70	85	73	158	2.2	35	24	59	37	50	49	99	1.4	10	3	28	45	30	75	47	40	43	83	1.2
Larat Bipa	47	56	55	111	2.3	22	16	38	34	34	39	73	1.5	9	6	10	29	31	60	54	27	24	51	1.0
Lugogun	66	95	82	177	2.6	26	27	53	29	69	55	124	1.8	13	6	34	47	37	84	47	48	45	93	1.4
Madina	84	104	76	180	2.8	17	8	25	13	87	68	155	2.4	11	2	24	33	19	58	32	65	57	122	1.9
Luaupoi	82	90	83	173	2.7	27	12	39	22	63	71	134	2.1	5	1	13	54	32	83	47	39	51	90	1.4
Pisen	63	79	62	141	2.2	5	14	19	13	74	48	122	1.9	1	..	6	26	27	53	37	53	35	88	1.3
Katkat	37	48	38	86	2.3	2	8	10	11	46	30	76	2.0	1	1	7	14	18	32	37	35	20	55	1.4
Fatudlak	95	102	95	197	2.0	4	1	5	3	98	94	192	2.0	..	1	..	19	13	32	16	83	82	165	1.7
Lipulana	42	45	48	93	2.2	7	5	12	12	38	43	81	1.9	2	..	12	17	17	34	30	28	31	59	1.4
Tandis	44	50	34	84	1.9	6	2	8	9	44	32	76	1.7	3	..	14	16	4	20	23	34	30	64	1.4

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2. New Ireland, East Coast.—Issue and Survival of Unions—*continued.*

Village Group	Number of Unions	Issue			Issue per Union	Issue died during Lactation				Issue survived Lactation			Issue survived Lactation per Union	First Born Children died during Lactation			Issue died to 1/6/30				Issue Survived to Date			Issue Survived to Date per Union
		Males	Females	Total		Males	Females	Total	Percentage	Males	Females	Total		Males	Females	Percentage	Males	Females	Total	Percentage	Males	Females	Total	
Umba	30	51	41	92	1.8	6	8	14	15	45	33	78	1.5	3	2	14	14	12	26	28	37	29	66	1.3
Vemlet	24	29	28	57	1.1	7	4	11	19	22	24	46	1.9	3	1	20	10	7	17	29	19	21	40	1.6
Langunta	15	30	33	63	4.2	1	3	4	6	19	16	35	2.3	1	1	25	7	7	14	40	11	21	32	2.1
Lasu	62	110	84	194	3.1	10	14	24	12	106	80	186	3	1	4	17	36	31	67	35	34	28	62	1
Aroha	37	34	31	65	1.8	1	3	4	6	33	28	61	1.6				4	12	16	24	30	19	49	1.3
Lefalon	37	50	37	87	2.3	6	5	11	12	44	32	76	2		1	10	10	7	17	19	40	25	65	1.7
Lemasong	74	85	67	152	2.1	10	5	15	10	75	54	129	1.7	2	2	7	19	18	37	24	66	49	115	1.5
Kommes	54	76	77	153	2.8	12	8	20	13	63	69	132	2.4	1	1	6	23	24	47	31	53	53	106	1.9
Kemelin	44	30	26	56	1.3	4	4	8	14	26	22	48	1.1	2	1	8	16	14	30	53	14	12	26	0.6
Pinginda	110	72	69	141	1.3	8	5	13	9	64	64	128	1.1	4	4	8	16	19	35	24	56	50	106	0.9
Tekiret	33	27	17	44	1.3					27	17	44	1.3				5	3	8	18	22	14	36	1.1
Kalenalan	41	33	33	66	1.6	7	8	15	23	26	25	51	1.2	2	1	11	10	10	20	30	23	26	49	1.2
Lambuser	72	54	45	99	1.3	10	12	22	22	44	33	77	1.0	6	4	21	12	19	31	31	42	26	68	0.9
Maloin	96	76	54	130	1.3	10	8	18	14	66	45	111	1.1	5	3	12	21	13	34	26	55	40	95	0.9
Lasigi	49	36	45	81	1.6	11	8	19	23	23	37	60	1.2	7	4	19	20	15	35	43	16	30	46	0.9
Wattana	96	87	55	142	1.4	18	6	24	16	69	49	118	1.2	12	1	10	38	22	60	42	49	33	82	0.8
Kangunsuttus	9	23	16	39	4.3	6	5	11	28	17	11	28	3.1	4	0	44	12	8	20	51	11	8	19	2.1
Livinko	36	51	36	87	2.4	14	10	24	27	37	26	63	1.7		2	7	24	21	45	51	27	15	42	1.1
Kandan	28	32	22	54	1.9	6	2	8	14	26	20	46	1.6	1		5	18	7	25	46	14	15	29	1
Lindiu	83	62	65	127	1.5	11	17	28	22	51	48	99	1.1	5	5	18	16	22	38	29	46	44	90	1.1
Kantelin	58	32	19	51	1.4	10	7	17	33	22	12	34	0.9	4	3	26	16	11	27	52	16	8	24	0.7
Pamtarwe	58	32	19	51	1.3	10	5	15	29	22	14	36	0.9	8	3	37	16	8	24	47	16	11	27	0.7
Lemaris	59	31	31	62	1.5	10	7	17	27	21	24	45	1.1	4	1	23	10	22	41	66	12	9	21	0.5
Kamumbu	79	79	42	121	2.0	34	10	44	36	45	32	77	1.3	6	2	22	42	29	62	51	37	25	62	1.0
Wattanes	41	30	31	61	1.5	8	5	13	21	22	26	48	1.0	6	3	31	11	7	18	29	19	24	43	1.7
Pavatgin	42	13	52	95	2.2	20	31	51	54	33	21	44	1.0	10	3	30	28	39	67	70	15	13	28	0.6
Datined	35	15	34	59	1.6	6	16	22	37	19	18	37	1.4	5	3	32	11	20	31	52	14	14	28	1.1
Sikin	25	18	20	38	1.5	3	3	6	15	15	17	32	1.2	1	2	18	6	4	10	26	12	16	28	1.1
Katemda	29	18	27	45	1.5	1	6	7	15	17	21	38	1.3	1	1	11	5	11	16	35	13	16	29	1.0
Buin	24	26	22	48	2.0	2	5	7	14	24	17	41	1.7		3	18	5	11	16	33	21	11	32	1.3
Lesom	38	49	41	90	2.3	9	7	16	17	40	31	74	1.9	2	4	19	22	9	31	34	27	32	59	1.5
Kanam	28	34	25	59	2.1	2		2	3	32	25	57	2.0				17	10	27	45	17	15	32	1.1
Karu	52	46	48	94	1.8	6	15	20	21	41	33	74	1.4	4	5	25	10	21	31	32	36	27	63	1.2
Total District of New Ireland, East Coast..	3,073	3,276	2,819	6,095	2.0	623	567	1,190	19	2,653	2,252	4,905	1.6	244	156	18	1,101	1,050	2,250	37	2,085	1,760	3,845	1.3

3. NEW IRELAND, EAST COAST.—FRUITLESS UNIONS, ISSUE AND SURVIVAL OF FRUITFUL UNIONS, STATISTICS OF MASCULINITY.

Village Group	Fruitless Unions.						Number of Unions with Total Issue of.										Average Issue per Fruitful Union.	Average Survival per Fruitful Union.	Sex Ratio Excess of Males over Females per cent of Persons.					Females of Reproductive Age.	Old Persons		
	Total Number.	Newly Married.	Husband works away	Husband or Wife Dead.	Wife Still Young.	Apparently Sterile.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.			Births.	Infantile Mortality.	Mortality of Issue.	Survival of Issue.	Population: Children under 14.	Population: Adults.		Males.	Females.	Total.
Kulangit	3	3					3				1						1.6	1.3	48		60	45	21	20	14	1	1	2
Bogali	20	8		2			11	6	2		1	1		1			2.3	2.0	8	33	14	5	28	27	11	5	7	12
Mungai	10	4					12	4	2								1.8	1.4	16	33	7	20	14	17	11	5	7	12
Omo	25	10	1				23	14	11	2							2.1	1.5	5	40	27	18	18	20	18	9	13	22
Malom	7	1	2				12	4	5	2	1	1					2.1	1.8	7		38	2	4	23	17	6	10	16
Tapliang	4	2					10	2	2	2							1.6	1.1	12	20	25	9		25	16	5	5	10
Bobei	8	2					4	2	2	2	1	1					3.0	1.6	20			37	60	2	14	1	3	4
Kapliman	5	2	1				3	6	7	4	3			1			2.5	1.6	8		5	9	17	20	18	3	3	6
Kaselok	9	4	1				6	7	2	2	4	2					2.6	1.5	8	7	11	7	30	16	11	1	4	5
Putput	7	4					7	5	2	2	4	2					2.4	1.3	15	55	25	7	33	14	22	2	3	5
Nono	6	3					10	1	2	2	6	2					2.4	1.3	46	6	16	30	22	61	17	3	5	8
Ngavelus	12	6	2				4	13	3	3	3	2	1	1			3.1	1.9	2		14	15	7	18	18	6	6	12
Lovong-ai	6	1	1				9	13	4	2	4	1	1	1			3.1	2.0	17	15	33	9	7	16	28	12	17	29
Louk	4						12	5	2	1	4	3	1				3.1	1.8	5	37	25	24	36	15	16	3	17	20
Mangai	18	2	1				7	9	7	2	3	1	1				2.6	1.6	2	20	18	14	25	23	24	6	10	16
Livitua	11	1	1				7	6	5	3	6	4	1				3.5	2.1	27	36	31	24	8	20	17	12	24	36
Laowan	14	4	2				5	4	3	5	3	1	2				3.3	1.7	9	15	11	7	17	11	27	5	12	17
Vongararuin	12	2					5	4	6	6	3	2	4	1			2.7	1.6	8	8	3	2	3	8	26	13	19	32
Paruai	7	2	1			1	3	6	1	5	5	3	4	1			3.5	2.0	5	13	13		9	13	25	6	7	13
Lakurafanga	4						2	1	4	2	6		1				3.4	2.1	3		20	18	30	40	13	2	1	3
Nanapai	4	1					1	8	4	5	1	4					3.1	2.2	4		16	27	20	17	15	11	11	22
Sali	6	1					3	6	2	3	3	1	3		1		2.8	1.7	6	9	5	14	12	28	12	2	9	11
Lamekut	15	2	2	2			7	10	9	4	1	1					2.9	2.1	1	50	16	7	2	15	24	8	17	25
Fongalava	10	5	1				4	7	5	5	4	2					2.7	1.9	8	40	26	21	3	16	24	7	13	20
Luburua	2		1				1	2	7	2	6	1					3.4	2.2	2	25	16	12	7	20	17	3	7	10
Lakuruman	14		3	3			8	23	10	10	10	7	3	2	1		3.0	1.7	8	6	14	4	1	15	45	26	24	50
Munuwai	25	5	1	8			11	10	7	9	7	4	2	1			3.5	1.8	7	18	20	3	10	14	44	9	17	26
Larai Iina	10	3		3			4	11	7	6	6	2	2				3.0	1.3		6	3	5	7	5	24	4	12	16
Lugagun	12	4		3			5	12	11	9	7	1	5	2			3.2	1.7	7	1	11	3	3	17	44	8	8	16
Madina	11	1	4		2		4	8	11	11	11	5	5		1		3.3	2.3	15	36	34	8	4	13	40	13	19	32
Luaupui	10	2	4				2	6	10	11	13	10	2				3.3	1.7	4	38	22	13	25	18	41	6	18	24
Fizza	20	6	5		2		5	11	5	10	7	4	3				3.2	2.0	12	47	1	20	17	11	41	5	25	30
Kafkaf	10	4	1	2	2			6	4	5	6	3	3				3.0	2.0	11	60	16	27	29	13	21	8	8	16
Fatmilak	24	12		6			6	18	13	20	10	7	3				2.7	2.3	3	60	18	6			73	16	26	42
Limalaua	10	1	4	1			4	5	11	6	4	4	1				2.9	1.8	3	10		5	11	10	30	10	9	19
Tandis	10	3	1		2		4	10	10	7	4	1	2				2.4	1.8	10	50	60	6	9	20	26	11	14	25
Limba	15	6	4	1			4	10	8	7	5	5					2.6	1.8	10	14	7	12	12	14	42	8	10	18

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3. New Ireland, East Coast.—Fruitless Unions, Issue and Survival of Fruitful Unions, Statistics of Masculinity—*continued.*

Village Group.	Fruitless Unions					Number of Unions with Total Issue of									Average Issue per Fruitful Union.	Average Survival per Fruitful Union.	Sex Ratio Excess of Males over Females per cent. of Females.					Females of Reproductive age.	Ute Persons.		
	Total Number.	Newly Married.	Husband works away.	Husband or Wife Dead.	Wife still Young.	Apparently sterile.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.			Births.	Infantile Mortality of Issue.	Survival of Issue.	Children under 14	Adults.		Males.	Females.	Total.
Vendat	3	2	1				4	2	10	1							2·8	2·0	1	27	17	6	7	19	2	3	5
Lang-inia	3	2	1	2		3	12	13	4	5		1		1			2·4	2·0	13	50		17	22	25	13	15	28
Lasau	6	2	2			2	10	15	3	14	6	1	2		1		3·1	2·8	13	35	8	22	17	16	82	16	21	37
Amta	3	2				1	6	8	2	4	3	1					2·7	2·6	4	50	50	22	52	20	10	7	10	17
Letatan	3	3	2			3	4	6	9	8							3·0	2·8	14	9		10	7	9	21	6	13	19
Lemascog	18	2	6	2		8	21	18	6	5	4	2					1·6	1·5	2	11	2	2	2	18	55	27	17	44
Nonive	6	2				4	7	12	7	8	6	1		1			3·3	2·1	1	20	13	5	16	9	29	18	23	41
Kesobin	19	4		11		4	8	8	5	3	1						2·2	1·0	7		6	7	38	25	14	17	14	31
Pinigindo	38		3	11	4	20	37	17	9	5	1	1	1				1·9	1·4	2	23	8	5	11	9	58	27	30	57
Tekirot	15	2		6		7	5	8	5	1	2						2·4	2·0	22		25	22	5	9	20	4	7	11
Kafendan	15	5	1	4		5	6	8	3	1	1						2·6	1·8	3	6		4	4	10	25	5	8	13
Lambuso	26	4		11	5	6	18	12	10	4	1	1	1				2·1	1·4	9	9	22	23	6	14	28	13	15	28
Malom	30	14	5	6	1	2	32	18	8	6		1	1				1·9	1·4	17	11	23	15	20	10	40	18	26	44
Lasigi	12	2	1	2		7	15	7	10	4	2	1	1				2·1	1·2	11	23	14	30	20	9	27	9	13	22
Watsana	29	16	2	2	1	8	23	24	14	3	2		1				2·1	1·2	22	50	26	19	35	5	42	22	21	43
Kanagunaguus							1	1	2		2	2					4·3	2·1	17	9	20	15	23		9	6	3	9
Livinko	10	2		6		2	7	4	5	3	3	2	1		1		3·3	1·6	17	16	6	28	36	5	21	6	14	20
Kandan	8	2	2	3		1	7	4	3	3	3	1	1				2·7	1·4	18	50	44	3	20	9	17	9	7	16
Limbin	29	10	2	13	1	5	21	13	9	5	1	4	2				2·3	1·8	2	21	15	3	27	15	39	23	21	44
Kertebu	9	1		4	1	3	14	4	5	5	1	2					1·9	0·9	25	17	18	23	36	6	19	4	12	16
Bumbowe	10	1		2	3	4	16	7	5	5	2		1	2			1·7	0·9	24	33	33	18	5	5	14	8	15	23
Lemaris	18	5		6		7	8	7	6	6	3	2	2				2·9	1·0		14		14	50	12	14	10	10	20
Kanambu	23	6		7	2	8	10	7	5	6	3	2	2				2·3	1·6	30	14	35	25	31	20	24	17	11	28
Watiama	15	2			3	10	11	8	6	5	4	2		2			2·1	1·4		24	22	17		9	19	10	12	22
Pensiglo	9			1	2	6	12	6	6	4	3	2	2				2·8	0·8		9	22		7		32	10	7	17
Dalanot	10	1		2	1	6	11	5	5	3	3	2	1		1		2·8	1·7		15	44	20		20	18	10	7	17
Sliom	9	1	1	3	1	3	5	6	3	3	3	1					2·8	1·7		20	5	14		2	18	5	7	12
Katendi	12	3	1	3		5	7	5	3	3	3						2·8	1·7	100	5	71	10	9	2	18	5	7	12
Bubo	8	3		3		2	5	3	2	2	2	1					3·0	2·0		12	37	17			21	7	7	14
Lagun	7	4		1		2	4	3	2	2	2	1					3·0	1·8		8	33	31	27	17	20	7	7	14
Kanam	8	4	1			3	5	4	3	3	3	1					3·0	1·8		8	33	29	10	7	23	7	7	14
Barn	12	4				8	10	6	5	4	4						2·9	1·8		40	40	18	9	23	27	7	11	18
Total District of New Ireland, East Coast	835	228	77	216	61	254	380	272	209	217	182	95	68	51	6	4	2·7	1·7	7	5	6	8	7	18	1,778	664	815	1,479

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As the population of these villages was apparently not enumerated until 1921, it is not possible to draw a comparative table covering the period between Hoffman's survey* and the present investigation. Hoffman's enumeration of the people between Kaveing and Tekirot for 1911, which included villages not within the area now recorded resulted in—

	Adults.		Children.		Working Total.
1911.. ..	3,415	2,916	695	655	810
1912.. ..	3,418	2,020	697	669	1,147

The additional figures for 1912 do not indicate an increase in the population. They appear to represent mainly members of the community who were not counted in 1911.

The official figures taken during the Australian Administration are as follow:—

	Adults.		Children.		Total.		Absent	Grand Total.
	M.	F.	M.	F.	M.	F.		
1922–23 ..	4,020	2,407	911	1,066	4,931	3,473	..	8,404
1923–24 ..	3,603	2,395	1,040	980	4,700	3,302	..	7,011
1924–25 ..	3,664	2,370	1,157	957	4,821	3,336	..	7,157
1925–26 ..	3,670	2,036	1,002	979	4,672	3,008	..	7,270
1927–28 ..	3,908	2,630	1,187	1,047	5,095	3,677	..	7,192
1928–29 ..	2,291	2,431	1,256	1,118	3,547	3,549	..	7,096
My enumeration (not including Nagail Village) ..	2,592	2,565	1,097	1,027	3,689	3,592	1,072 / 163	8,506

The above figures vary considerably, but to what extent these variations are due to fluctuations in the population it is not possible to say.

It has been shown that the population declined to an alarming extent during the last few years of German Administration. It is also probable that a considerable loss of life resulted from the famine of 1914. The epidemics of influenza that raged through the world during 1918 and the year following also took their toll of the district. There is every indication now, however, that in places the population of the east coast of New Ireland is beginning to hold its own, and, if people of the villages that are in need of special treatment can be induced to follow the advice of the Government in regard to plans especially designed for their benefit, conditions at present arresting their development should be removed and a healthier situation created. It must be remembered, however, that any programme for the improvement of the natives which threatens to change existing

*Dr. Hoffman; *Government Gazette*, German New Guinea, 1st June, 1915.

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161 conditions and demands the co-operation of the natives themselves will have many obstacles placed in its path, not the least of which will be a disheartening lack of interest on the part of the people whose improvement is sought.

FRUITLESS UNIONS.

163 Out of 3,073 unions investigated by me for the purpose of estimating issue and survival rates 835 or 27 per cent. were fruitless. When one goes into the reasons for fruitlessness, this figure is not so alarming as it at first appears. Of the fruitless unions, 228 or 27 per cent. are newly married, and likely to be productive within the next year or so. In 77 cases, or 9 per cent., the male partner is absent working and on return of the absentees the unions or at any rate a proportion of them may become fruitful. In 205 instances, or 24 per cent., either the male or the female partner is dead. Where the female has survived, a certain proportion may be expected to re-marry and of these some may possibly have issue. In 41 cases, or 5 per cent., the female, though married some time, is not looked upon by the other inhabitants of the village as being sterile; a certain proportion of these unions may also be expected to contribute issue. The balance of the fruitless unions 284, or 34 per cent., is regarded by the people as definitely sterile either through old age or on account of some physical disability.

FRUITFULNESS OF UNIONS.

The total issue is due therefore to 2,238 fruitful unions, which gives an average issue per fruitful union of 2.7, of whom 1.7 per union have survived. In working out the fruitfulness of the unions, I find that 600 have had an issue of 1 child each, 502 have had an issue of 2 children each, 389 have had an issue of 3 children each, 317 have had an issue of 4 children each, 182 have had an issue of 5 children each, 95 have had an issue of 6 children each, 32 have had an issue of 7 children each, 21 have had an issue of 8 children each, 6 have had an issue of 9 children each, and 4 have had an issue of 10 children each. There are considerable fluctuations in the issue and survival rates among the different villages. As a rule, the villages on the lower end of the road have small issues, high infant mortality and low survivals. In these villages I made special investigations, and found conditions of hardship consistent with the poverty in issue and survival. Certain villages in Kavieng itself also have a low survival rate, but here the issue rate is low, and the mortality rate not heavy.

INFANT MORTALITY.

165 According to the census, 19 per cent. of the children (6,096) of the unions (3,073) investigated, died during the period of lactation (2 years). This compares favorably with the figures resulting from an inquiry made by me some time ago in the Duke of York group.

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The record depends entirely on the information given me by mothers who named their children in the order in which they were born, and then described those who died by saying "died while still breast-feeding", or "died after having finished with breast-feeding". Others standing by refreshed the memory of a mother as to names of children and approximate age at death when she appeared uncertain. Relatively few mothers had to be assisted in this way, but in one or two villages the information is not to be relied upon.

On looking down this column one finds that deaths during lactation are more numerous in some villages than in others, e.g., seven villages on the lower road between Kandan and Karu average 33 per cent. of issue dying during lactation. It is in this vicinity that the high central range runs close to the coast, its slopes falling abruptly down to the water's edge where the villages are built usually on coral cliffs. The cold mountain winds and rains sweep through them day and night, producing a climatic condition of sudden changes from heat to cold, which must be exceedingly dangerous for people who live there practically in nakedness. The garden lands are scattered all over the place, mostly on the steep mountain sides, and garden work is probably more strenuous than it is in the districts nearer to Kavieng, especially for pregnant women, or women nursing children that have to be carried about by their mothers when working in their gardens or looking for shell fish in the sea. I saw infants being fed on solid foods, and it was quite a common thing to meet pregnant women or women with babies trudging up and down the mountain sides on their way to and from the gardens, with enormous bags of food, and infants sitting on top of the bags. On discussing with the men the question of women resting while pregnant, I was told that the women insist on doing their share of the work at this period for fear of being shamed by other women, especially the older ones, who laugh at them if they become more careful with pregnancy and talk in a superior way of what women did and endured in olden times. At the same time, my informant pointed out, a husband steps in and relieves his wife as much as possible of heavy work during the period of gestation and lactation. I was also told that men try to keep their wives out of the water during these periods by doing more shell-fishing themselves. This may be so in a few individual cases, but I am inclined to think that most of the women have to bear their burden alone, and, as the conditions of life are rather too strenuous at this end of the road for child-bearing women, the health of both the mother and the child suffers, with disastrous results to the child. This, to my mind, accounts for the low issue rate and heavy infant mortality rate in this group of villages. Being situated where they are, far from any plantation and over 100 miles from the Medical Officer at Kavieng, places them out of reach of the present medical service, which is not able to cope

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165 adequately with the problems arising from these conditions. The high infant mortality rate in Places as favorably situated as Munuwai, Losuk, Nono, Lavaibina, Lugagun, &c., however, is difficult to explain. Between Munuwai and Kavieng, the conditions of life for child-bearing women and for infants are not so difficult as those in villages lower down the road. In all the villages above-named, infants are commonly fed on taro and other solid foods. Mission influence however is very strongly established in this part of the district, and, as the villages are within reach of the medical authorities at Kavieng, conditions should improve as time goes on.

[853]

OLD PEOPLE.

162 It is amazing to find on this road such a large number of extremely 145 old people. Nowhere else in the Territory have I noticed so many. The males numbered 604 and the females 815. Practically all of them were grey-haired or bald, and in the lower end of the road many of the bald men wore neat wigs of human hair. Some of them are survivors of the old black-birding days, having worked on the cane-fields in Queensland. It is doubtful if many of these old people will survive another two years, a possibility that might be remembered when the death rates for the next few years are being tabulated.

[302]

WOMEN OF REPRODUCTIVE AGE.

162 Out of the women enumerated, I counted 1,779 who were definitely said by the elders to be the fertile women on whom the future population depended, until females at present under age of puberty could become married. The number of reproductive women is probably larger, but I could only estimate this figure, and in this was assisted by the old men.

ABORTION.

847 The tables disclose a large number of fruitless unions, 34 per cent. of which are due apparently to sterility. Some of my informants 842 told me that the women chew the leaves of plants and drink infusions from leaves, roots, &c., both to prevent conception and to procure abortion. It is not easy for a male observer to disentangle the mass of information offered on this subject, but, as Dr. (Miss) Powdermaker is now making an intensive study in the area with especial reference to women, valuable data may shortly be forthcoming. It is said there are also mechanical methods of procuring abortion. A peculiar aspect of the information regarding sterility is that women chew certain leaves when newly married, and become sterile, but, when later on they desire to have children, another species of plant is eaten to restore fertility. This could not be closely investigated, but my information has been passed on to Dr. Powdermaker, who may be successful in securing reliable information on the point.

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A large number of the apparently sterile women are very old. The usual reply to a question concerning the lack of children is that the bearing of children is a burden which interferes with the efficiency of women in garden and road work, or the oft repeated, "laze along push push", one suggesting deliberate abortion, and the other lack of desire.

APATHY.

We are dealing with a people who have been profoundly upset by the coming of European settlement, which during the first few years rudely interrupted local conditions of life, and practically withdrew the majority of able-bodied males and many females of reproductive age from the villages, and continued to drain the population of its best blood year after year. The old German methods of uniting the stocks meant, in effect, that bush people and coastal people were deprived of their racial and social individuality, and compelled to live more or less on one another's ground, thus perforce losing the very characteristics that make for group stability. By the land alienation that took place during these years, natives found themselves being gradually pushed into corners here and there by the ever-expanding European settlement. The road work and other uses to which the relatively few remaining able-bodied men were put left small time for gardening and other native occupations. On top of these disturbing influences came the Mission with its new cultures. Pressure was brought to bear on all practices having the slightest resemblance to European standards of immorality. The natives who led an active sexual life with more or less promiscuity, in which they were constantly stimulated by various dances that gave incentive to and opportunity for sexual expression, now heard that their most natural and spontaneous activities were things of which to be ashamed, unless regulated in accordance with the standards taught by the Mission. As a prominent headman said to me, "the romance, excitement, and adventure of sex have gone. Always the native teachers speak of it in church and school as a thing of shame. Before, men and women gratified their desires when and where they found them. Now, to go into the bush with your lover is to be publicly shamed. The Missions say to the people who are married, 'You must have more children', but how can there be children without sex life, and how can there be sex life without sex play. Our night dances are practically forbidden, romance and adventure now appear to be sins, and the boys and girls are ashamed, and have no desire ('laze along, push push')."

There is no doubt that in olden days the native ceremonial and social life stimulated considerable sexual freedom. In many places women were permitted to have lovers who were to a certain extent recognized socially, and who contributed payments to the husband.

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177 [837] During the excitement of the night dances, *hot*, and in ordinary times, people simply went into the bush and indulged themselves whenever desire came and opportunity offered, and, if complications occurred, no one seemed to worry very much about them. Children were absorbed [848] into the social group of the mother, and apparently children without social fathers suffered little on that account. Now, however, all is changed, and the people are struggling to adapt their natural instincts to the modified sexual activity that has been laid down for them. There appears, however, to be little doubt that more or less adaptation may be achieved within the next generation.

It is evident, therefore, that in the clash between European and native culture, with the dominance of the European, the natives have suffered from a certain degree of apathy. First, the establishment of Government control and subjugation of hostile tribes, which left them without the very conditions that, paradoxically enough, gave them the incentive to survive. Next, the introduction of commercial enterprise, which led to the gradual alienation of the most fertile land and squeezed the inhabitants into odd corners, cut off from one another in places by the thrusts of European settlement, and which led to the taking away of virile males and females in numbers damaging to the population. Next, the road work and other Government enterprises that took the relatively few able-bodied men left in the villages away from their gardens and other native work, and undoubtedly upset still further the already bewildered inhabitants. Then, the administrative experiments endeavouring by force to blend socially and physically people differing in language and culture who but a short time before had been bitterly fighting one another. One needs little imagination to appreciate the sufferings of a small group of bush people compelled to build villages among their coastal enemies and live in them away from their own environment, conditions, traditional stimuli and other forces on which their very vitality depends, to live moreover practically on the bounty of their coastal enemies, who would resent the intrusion as much as the intruders. Out of such conditions there must have arisen innumerable and continuous anti-social practices on the part of both peoples to resist the objective of the German Government, and, realizing the constant state of fear and anxiety in which such groups would live, one wonders there are any survivors at all: then—on top of this—the missions attempting to transform the little that is left!

Such, briefly, and perhaps harshly, are the processes that have been operating actively in this district for the past 40 years. It is too early yet for any definite good to have come out of the changes and teaching, and it is doubtful whether permanent results will be achieved while the males and females of the original generation are still alive, as their presence and their influence will ever form a resisting barrier to the

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progress of the new cultures. Among the children now being educated, however, the changes wrought by the civilizing processes are steadily bearing fruit. 177

NATIVE LABOUR.

During the early years of German control, and while efforts were being made to amalgamate the native stocks, able-bodied men and women were recruited in relatively large numbers for work in different parts of the Territory and in German colonies beyond the Territory. 167 464

In 1909-10, however, the number of natives recruited for work outside the district decreased considerably, owing, no doubt, to the plantations then being developed in New Ireland, which were able to offer local employment to the natives of the district. In that year the recruiting of unmarried women from New Ireland was prohibited, a step by which the German Government hoped "that the extraordinary scarcity of women under which New Ireland has directly suffered for years in consequence of the unmarried women being taken away, will gradually be rectified, and so counteract the falling-off of the population."

Hoffman* points out that the able-bodied male natives recruited from the East coast in 1911 numbered 810, and in 1912 this number increased to 1,147. There was no record of the married and unmarried women recruited during that time. Hoffman goes on to say: "It is difficult to draw any conclusion from the present lists and records as to whether and how far the shortage of women brought about by recruiting at present exists. As has been mentioned before, records of the numbers of recruited women are lacking. . . . It is a fact, however, that the natural shortage of women is made more or less acute by recruiting. There is no proof to show that it is brought about by recruiting."

During my enumeration of the population the names of 925 men and 101 women were recorded "absent under indenture." This figure represents 12 per cent. of the total population, 25 per cent. of the adult male population and actually 27 per cent. of able-bodied males. Approximately 550 males and 60 females are employed by Europeans and Asiatics between Kavieng and Karu. The remainder are distributed in other parts of New Ireland and the Territory, a fair number of men and women being engaged in domestic service within the township of Rabaul, in which work they show special aptitude. Thirty-four per cent. of the labourers are married. 162 167 464

Native labourers employed on plantations near their villages are in the satisfactory position of being able to spend at least every week-end and often every night with their families. This is an ideal condition from the point of view both of the planter and of the labourer. It 466

*Government Gazette, German New Guinea, June, 1913.

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466 frequently happens that the plantation owner or manager is thus brought intimately in touch with all the people of the villages to which his employees belong, and one hears of many acts of kindness and consideration on the part of the employers towards the fellow-villagers of their labourers, such as the free treatment of sick, &c. I heard of one planter on the east coast road who not only places his plantation hospital at the disposal of the people of surrounding villages, but both he and his wife actually go among them and encourage them to come in whenever they are in need of careful treatment, to this end often incurring considerable expense in drugs and food.

000 I think that the employment of local natives should be encouraged in every way possible. As I have pointed out already, it is far more economical for the planter to secure his labourers from adjacent villages than to recruit them from other parts of New Guinea. It also lessens the drain on the population if able-bodied men available for plantation work serve on some place near enough to their villages to enable them to continue the thread of village life. For these reasons I have made a recommendation to the Administration that the recruiting of natives of the Kavieng-Karu district for work outside New Ireland, excepting for skilled and domestic work, be prohibited.

The few that engage in skilled labour and domestic work in other parts of the Territory make no appreciable difference to village life, and, since work of that kind provides an avenue of usefulness to natives adapted for it, I think it should be kept open for them. What is desired is to prevent the district being drained of its best blood. This can be effected by prohibiting general recruiting for work in other districts.

464 In examining the tables, we find that the percentage of natives under indenture is larger in some villages than in others. Where these natives are engaged on local plantations the numbers are, for reasons given, not so alarming as they appear to be. In fact, it suggests a trend in the right direction, for in proportion to the number of local natives employed is indicated the influence of the employer and the manner in which he is fulfilling his part in the work of progress.

FOOD.

262 The usual native foods are planted in the gardens, and people of the coastal villages appear able to secure fish, lobsters, and various shell fish. Pigs are bred in the villages, and wild pigs are hunted in the bush. In the mountain villages vegetable food is more plentiful than on the coast, where the ground is not so fertile, and gardens, especially 438 those of certain villages, are some distance away. There is, however, constant trade in foods between the bush and coastal communities

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which gives each of them what they lack. In the vicinity of Lambuso, Pinigindu, Lemasong and Lugagun are sago swamps, which are relied upon in time of famine to support the people of the lower road, the owners then reaping large supplies of shell-money by selling the sago. 438 [261]

Dry spells from time to time produce food shortages, but as a rule these are apparently not very serious. In 1914 (?), however, no rain fell for about a year (?), and the people were in great distress. The whole country suffered from drought, and, excepting from the sago swamps, there was practically no food procurable. The period of drought and famine culminated in a series of destructive bush fires along the whole line of coast, bush and mountain ranges, and, from the graphic descriptions given to me, everything perished—wallabies, in fact, have scarcely been seen since. It is extremely probable that a great loss of life followed this period of famine. The natives said that only those with plenty of shell-money were able to keep themselves supplied with sago. People scattered far and wide, especially in the direction of Tabr, looking for food. 731

The natives now divide their time between work in their gardens and work on road maintenance, and it is possible that in some areas the demands of the road at times lead to neglect of garden work. The people of the mountain villages have villages on the coast, to which they come for a few days when their road services are due. I think this division of work and the areas for which the various villages are responsible should be made the subject of a special investigation by the district officials. Mr. Waugh, the District Officer, has in mind a scheme for the maintenance of a mobile road gang, with adequate transport facilities. If something of the kind were possible the natives could spend more time in their gardens and coco-nut groves. 421 491 651

HOUSING.

When I first went down the Kavieng road in 1924 most of the natives' houses were small, neat-looking, rectangular structures built on piles some feet above the ground. This was a standard pattern that had been introduced by the District Officials. On this occasion, however, I noticed that in most of the villages the people were living in their old type of house. Whether these are healthier than the introduced structures I cannot tell, but it seems to me much better to improve the structure they desire to live in than to force them to build houses which they will probably vacate as soon as the Government official's back is turned. The type of house, the erection of it, and everything connected with it, is definitely part of native culture and as such should be preserved as far as possible. 342 362

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GENERAL.

114 161 In German times the declining condition of the population caused the Government considerable alarm. In the Annual Report for 1907-08, it is pointed out that "the native population of the Bismarck Archipelago is decreasing in parts so rapidly that the fact is recognizable even without exact statistical reports. The grounds for the decrease of the population have not been definitely discovered for any of the districts concerned. The following, however, come into consideration:—Migration, especially resulting from recruiting of labourers; disease, especially epidemics; sexual diseases and the consequent decrease of birth-rate; abortion, and artificially-produced sterility; unproductiveness in consequence of degeneration and in-breeding."

Again, in 1910-11, the Annual Report calls attention to the misfortune that there is still evidence of a rapid decrease in the population of the whole of New Ireland.

114 161 177 In July, 1912, Dr. Hoffmann conducted a medical survey embracing the population of Kavieng, and its surroundings as far down the east coast as the village of Pinigindu. In the report of this survey he states that the retrogression of the population is very alarming, and that, if it goes on, the extinction of the population is in sight. He points out that it was shocking during the inspection to find how many long-standing marriages were childless, and how small was the issue in the fruitful marriages investigated. Hoffmann draws special attention to the deleterious effects that a native population suffers through the contact with the higher European civilized population, pointing out that the conditions of native life are thereby almost completely altered, that old customs lose their foundations, and with the introduction of trade and progress a complete revolution sets in, which must unsettle the native mind. He says there is scarcely a district which has not experienced more or less interruptive changes. He considers that the native, who formerly had need of a rising generation capable of fighting, now no longer sees the necessity for a virile posterity whose working capabilities can only benefit the European. He points out that all these disadvantages work subconsciously in the native mind, without any ultimate advantage ever entering his head. The change, being too sudden, results first of all in a retrogression of the people who have more or less lapsed into *taedium vitae*. What then is required, he suggests, is making the transition easy to accustom people to new conditions, to strengthen them, to guard them from illness, to improve their general conditions of living and so bring them a fresh lease of life. He questions the possible success even of this, but states that it must be tried even at

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the risk of a large expenditure and the abandonment of less pressing tasks. The section ends with a statement that, without a population capable of working, New Guinea is practically useless as a tropical colony.

After going into the diseases indicated during his examination, and relating the toll they had taken on the population, he summarizes briefly the opinions formed by his examination, and then submits under three headings certain measures for the adjustment of the problem, the most important of which actually agrees with what is now being done by the New Guinea Public Health Organization.

PRESENT MEDICAL CONTROL.

The villages along the road and mountains are regularly patrolled by the medical staff at Kavieng. Some of the planters and the missionaries treat any sick natives that are brought to them, and in addition to this a native medical Tul-tul is stationed in nearly every village, with a stock of medicine which he has been trained to use.

SUGGESTIONS.

The regeneration of the population of the east coast of New Ireland is, apart from administrative reasons, of the greatest importance to every European residing in the district, and from what I have seen of the missionaries and planters they can be relied upon to play their part in any scheme with this end in view.

A large part of tthe district lies too far from Kavieng to be effectively controlled by the present medical organization; and the excellent medical patrol system, which is doing so much good in a general way for the native population cannot possibly be expected to cope with the special conditions that affect the issue and survival rates of the community. What is required, therefore, is an examination of the district by a qualified and experienced medical officer, with the object of submitting a report on the most practical way of dealing with the problem.

A second factor in the scheme of regeneration is to improve the general conditions of native life, and study carefully anything standing in the way of welfare with the object of introducing necessary changes.

The primary factor in this scheme is sympathetic and thorough local administration. The present system of village control by Luluais and Tul-tuls under the supervision of district officials is a step in the right direction, provided the natives appointed by the Government are men acceptable to the villagers themselves, and represent adequately the various social groups into which the people are divided. No scheme of local administration, however, can possibly function satisfactorily

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unless the native officials have the confidence of their people. Any system lacking these conditions would lead to extortion, &c., and ultimately create general depression wherever faults existed.

Given a suitable staff of native officials and thorough supervision, local administration by native representatives is, in my opinion, eminently suited to the present condition of native development. The whole population is thus divided into a number of relatively discreet groups, each of which attends to its local affairs and leaves serious matters to the supervising district officials for adjustment. This keeps the district officials intimately in touch with the pulse of their district and enables them to detect in its earliest stage any element likely to threaten the general harmony of the district. Especially will it keep their attention constantly on the sensitive chain binding together the interests of European and native residents, on the stability of which depends the future of the population.

LAND ALIENATION.

In considering the question whether the land available is sufficient for the needs of the population one is hampered at the outset by the absence of reliable information as to the area now remaining the property of any particular village. All we have to guide us is the map of the district, which shows the area of alienated land and leaves the balance as village-owned land. But how this area is distributed amongst the village groups that inhabit the road we cannot tell, as village areas are not surveyed. In some cases, especially between Madina and Kavieng, there does not appear to be a very great area of suitable ground available for native garden expansion, and within this boundary in one or two places, where alienated land thrusting to the coast divides village-owned land, people are forced to walk through plantations to reach their gardens lying beyond. In certain cases, too, the close proximity of planted areas to villages has led to the destruction of village pigs whose owners have failed to keep them from straying on the plantations. In any case, in the absence of a survey of lands now remaining the property of natives, it is not desirable that any further alienation of coastal land shall take place between Kavieng and Malom, and in the event of applications being received for land between Malom and Karu a thorough investigation should be made in regard to the general needs of the villagers before such applications be considered.

ROADS.

One of the most important factors in the welfare of these people is time and opportunity for garden work. Under present conditions each village has a certain mileage of road to keep in order for motor traffic. I am of opinion that the question of road work should form the subject of a special inquiry by the District Officer, especially as to the proportion allotted to each village in relation to its able-bodied

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population, with the object of ascertaining whether there is a fair distribution of work along the whole length of the road. At the same time, since it is desirable that able-bodied men and women, not absent from the villages on indentured service or for other reasons, should spend as much time as possible in food production, it is suggested that some system might be arranged for the road to be kept in repair by a mobile road gang, suitably equipped with transport and necessities, thus releasing the local natives for their own work, from which they might sometimes be absent longer than is compatible with welfare, e.g., occasions such as the building of new bridges, &c.

NEW AGRICULTURAL METHODS.

I have stressed the point that natives should be encouraged to spend as much time as possible in their gardens. At present, owing to the production of copra, which brings in ready money for relatively little labour, there is a tendency for some of the natives in well-planted districts to neglect garden work and live more or less on European food. One reason is of course the poorness of the soil, which, though suitable for coco-nuts, is not, under present methods of native gardening, fertile enough for food crops. Under the agricultural policy of the Administration, however, selected natives from various parts of the territory are to be trained in correct methods of cultivating good crops and other crops of economic value. They will learn how the fertility of the soil can be maintained, and how the same land can be kept in constant cultivation without deteriorating. I have discussed the problem of the east coast road of New Ireland with Mr. George Murray, Director of Agriculture, and he agrees with me that the introduction of proper methods of food cultivation will prove to be of great benefit to the people. Not only will they be saved the endless hardship of searching the bush for new garden ground (now necessary owing to primitive methods of shifting cultivation); but there will also be given to them a new interest of vital material value, which will do much towards regenerating them. It is important, therefore, that representatives from the various villages of the east coast of New Ireland should be encouraged to take the course in agriculture provided by the Government, or, if this cannot be arranged, that instruction be given in the villages.

GENERAL.

In general, the contentment and peaceful progress of a population rests largely on the confidence it has in its district officials and the influence exerted by such officials. Every means should be provided to assist district officials to increase their knowledge of the people for whose welfare they are responsible. Staff conditions should allow

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them to spend as much time as they need in the villages to win and hold the confidence of their people. Then they will be always in sympathetic touch with what is going on and so be in a position, whenever necessary, to give advice that will be followed. Without this relationship between the people and their district officers, even the most elaborate provisions for native welfare are likely to be merely wasted effort. It is not too much to say that a sympathetic District Officer, who understands his people and has their confidence, can guide them along roads of progress, even though they may not at the start see eye to eye with him in the matter.

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Sketch showing position of villages on the East Coast o
by E. W. P. Chinnery, Go

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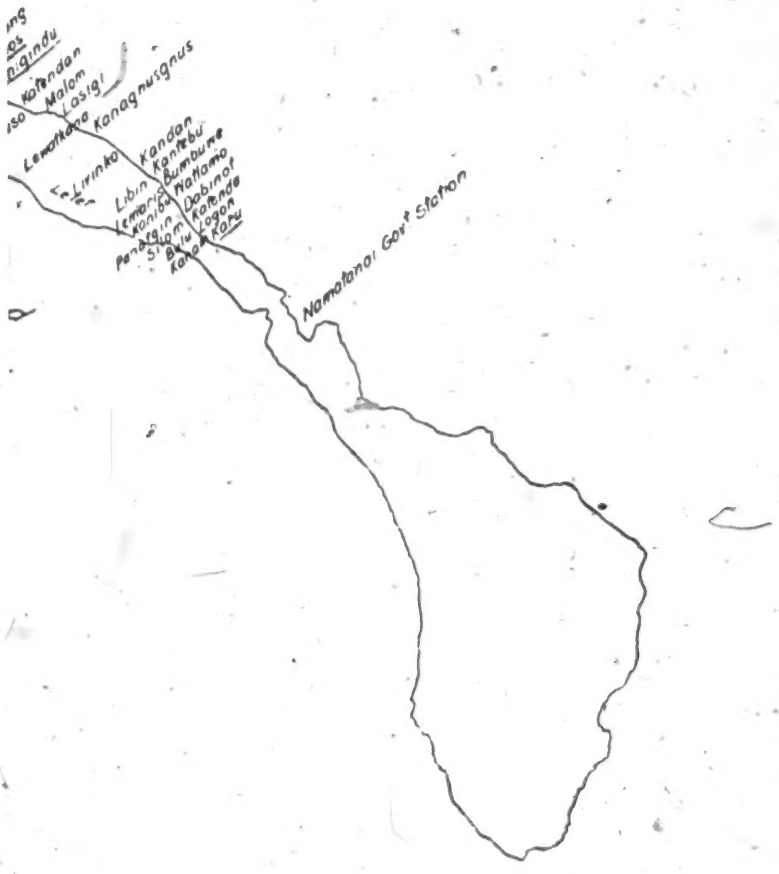

Coast of New Ireland, visited during Ethnological Survey
y, Government Anthropologist.

[p.52]

Villag

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♂ Name.	Apparent Age.	Social Group.	Name.	Apparent Age.	Social Group.	Village of ♂ or ♀ if of another village	
Luluai Lumok ..	50	*a.*	(1) Tanu ..	40	II.	.. ..	2 △
2 △ Sisa ...	25	II.	Meta ..	20	*b*	♀ of Lelet ..	
∈	..	..	Posai ..	30	III.	.. ..	Sinu
Tela	50	IV.	.. ..	..	..	.. ..	
Sona ..	..	..	(1) Semil ..	43	*a*	♂ of Lasau ..	
			(2) Tamug ..	40	*c*	.. ..	Sasu
			Marien ..	26	*b*	.. ..	Selut
Ara	..	II.	Senop ..	50	*a*	.. ..	Mesa
Sekop ..	30	II.	Tilan ..	..	*b*	.. ..	
═══ ..	..	III.	═══ ..	..	*a*	.. ..	Silar
═══ ..	...	*a*	═══ ..	..	II.	.. ..	Sika
═══ ..	..	*b*	═══ ..	..	III.	.. ..	

† ◊ child male dying during lactation period (first two years). ♂ male dyin

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APPEND

SPECIMEN OF CEN

Village—Tandis—coastal people— Clans A. Kungkung (eagle). Subdivisions—(a). Lamatis gr
Clans I. Talanga (hawk). Subdivisions—II. Sagil ground Langinia.—

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						CHILDREN.	
Name.	Apparent Age.	Social Group	Name.	Apparent Age.	Social Group.	Name.	S
2 △	..	..	Solus ..	20	II.	Tami	
.. ..	..	..	.. ..	..	..	.. .. ..	
Sinut ..	4	III.	Lesa	1½	III.	∈ Tar	
.. ..	..	..	.. ..	..	..	.. .. ..	
.. ..	..	..	.. ..	..	..	Welan	
Sasu	3	c	.. ..	..	..	Welani	
Selut ..	4	b	Suta ..	2	b	Atap	
Mesa ..	20	a	.. ..	..	..	.. .. ..	
.. ..	..	..	.. ..	..	..	.. .. ..	
Silam ..	14	a	Teran ..	12	a	.. .. ..	
Sika ..	25	II.	.. ..	..	..	.. .. ..	
.. ..	..	..	Melus ..	19	III.	.. .. ..	
						Janen	
						{Sesa .. .. Sinap	
						{Sali = ... Penet	
						{Tona = ... Pelmo	

Person dead is shown with === beneath name. = l

dying after having passed lactation period. ♦ male stillborn. ♦♦ twins dying s

Names and terms abov

[p. 54]

IX 1.

JSUS PAGE.

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ound near Libba.—(*b*). Wunul ground in bush near Bol.—(*c*). Tumital point Bolagila.
-III. Lavera ground Walapul.—IV. Taliwa stone near Libba.

Absent, school, mission, or working.					Name.	
ex.	Age.	Social Group	Place now.	Children who have died.		
♂	16	II.	Rabaul	◊ ♦ ♂	Seluan	♀
..	..	..	.. .. ..	.. ..	.. .. ..	.
♂	35	*c*	New Guinea	1 + ♦	.. .. ..	.
..	..	..	.. .. ..	.. ..	.. .. ..	.
♂	15	*a*	R.C. Mission Rab.	.. ..	.. .. ..	.
♂	10	*c*	Govt. School Rab.	.. ..	.. .. ..	.
♀	9	*b*	M. Mission Rab. ..	.. ..	.. .. ..	.
..	..	..	.. .. ..	.. ..	.. .. ..	.
..	..	..	.. .. ..	♦ ♦ .. .. + +	.. .. ..	.
..	..	..	.. .. ..	.. ..	.. .. ..	.
..	..	..	.. .. ..	.. ..	.. .. ..	.
..	..	..	.. .. ..	.. ..	.. .. ..	.
♂	19	*b*	Kavieng	.. ..	.. .. ..	
♂ ♀	6 4	*a* *a*	} Methodist Mission Kavieng	.. ..	.. .. ..	
♂ ♀	30 25	*b* III.	} Teachers R.C. .. Mission N.G.	.. ..	.. .. ..	
♂ ♀	20 19	IV. *b*	Rabaul	.. ..	.. .. ..	

between two names indicates that they are married.

stillborn. ◊ child female dying during lactation period (first two years). ♀ fe
+

re are fictitious.

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gila.

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ADOPTED CHILDREN.						General Remarks.
	Sex.	Age.	Social Group.	By whom Adopted.	Relationship to person adopting.	
..	♀	4	II.	♂	Tamunatu ..	♦ twin of Sisa △—Sisa shown in this column for counting issue 2
..	..	..	..	..	.. ..	Newly married—Sisa is son of Tanu
..	..	..	..	..	.. ..	First child male stillborn—husband working
..	..	..	..	..	.. ..	Semil has no children since marrying Tela
..	..	..	..	..	.. ..	Son of Semil's first husband Sona deceased
..	..	..	..	..	.. ..	Tela's two wives are sisters
..	..	..	..	..	.. ..	Marien unmarried—paternity of children unknown
..	..	..	..	..	.. ..	Senop is a widow
..	..	..	..	..	.. ..	Sekop widower—Tilan died at birth of female twins (stillborn)
..	..	..	..	..	.. ..	Brother and sister orphans
..	..	..	..	..	.. ..	Orphan male unmarried
..	..	..	..	..	.. ..	Orphan female unmarried
..	..	..	..	..	.. ..	Orphan working
..	..	..	..	..	.. ..	Orphan brother and sister at mission
..	..	..	..	..	.. ..	Husband and wife mission teachers
..	..	..	..	..	.. ..	Husband and wife working Rabaul

♀ female dying after having passed lactation period. ♦ female stillborn.

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Village	A Hornbill				B Pigeon				C Eagle				Ad
	Adults.		Children.		Adults.		Children.		Adults.		Children.		
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂
Kulangit	..	..	..	..	16	7	4	6	..	..	..	..	..
Bagail	..	..	..	..	4	7	3	4	..	..	..	..	..
Mongal	..	..	..	..	8	5	3	4	..	..	..	..	..
Omo	..	..	..	..	50	35	11	13	..	..	..	..	..
Maiom	..	..	..	..	13	4	0	3	..	..	..	..	..
Papliang	..	..	..	..	16	12	2	1	..	..	..	..	..
Bobai	..	..	..	..	10	3	0	2	..	..	..	..	..
Kapliman	..	..	..	..	16	9	4	3	1	..	..	..	..
Kaselok	..	..	..	..	4	..	..	..	..	..	..	..	1
Putput	..	..	..	..	1	..	..	..	1	..	..	..	..
Nono	..	1	..	..	6	8	2	7	..	..	..	..	1
Ngavelus	..	..	..	..	5	6	1	4	..	..	..	..	1
Lovongai	..	..	..	..	5	6	5	6	1	..	..	..	1
Losuk	..	1	1	..	1	1	..	..	4	3	2	..	5
Mangai	..	..	..	..	9	11	0	3	18	9	2	2	..
Livitua	..	..	..	..	4	1	0	1	6	3	3	2	10
Laowan	..	..	..	..	3	1	1	1	1	2	2	..	15
Vongararum	..	1	2	..	4	4	3	3	..	5	4	3	16
Parual	..	1	2	1	..	2	2	0	1	..	..	..	17
Lakurafanga	..	14	4	2	2	..	..	..	..	..	..	..	6
Nonapai	..	1	2	4	1	..	1	..	..	..	..	..	13
Sali	..	4	1	2	3	..	..	..	..	2	..	..	19
Lamekot	..	5	4	2	3	8	7	4	1	..	..	..	13
Fongalava	..	1	1	..	..	1	..	..	..	1	..	..	20
Luburua	..	1	3	1	1	..	..	..	..	18	6	2	1	1
Lakurumau	..	3	2	..	..	..	..	..	..	21	16	4	6	33
Munuwai	..	5	4	..	2	6	2	1	3	22	15	5	3	6
Larsibiria	..	5	1	1	..	1	2	..	..	1	1	..	..	..
Lugagun	..	6	6	3	5	1	..	..	..	2	4	1	2	8
Madma	..	10	5	4	1	9	9	3	8	9	4	1	1	15
Luaupul	..	3	3	1	..	23	21	9	11	18	23	3	6	8
Fisoa	..	2	..	..	..	39	37	9	8	5	..	..	..	1
Kafkaf	..	..	1	..	..	11	13	12	5	1	2	1	2	8
Fatmilak	..	2	7	3	3	43	25	9	7	18	23	4	7	17
Limalaua	..	..	..	..	..	..	..	..	..	26	16	8	5	21
Tandis	..	..	..	..	..	..	..	..	..	27	20	9	7	25
Limba	..	..	..	..	..	..	..	..	..	28	29	12	9	41
Yendat	..	..	..	..	..	..	..	..	..	14	9	7	6	10
Langinia	..	..	..	..	..	..	..	..	..	29	19	11	7	35
Lasau	..	..	..	..	..	..	..	..	..	59	29	27	16	45
Hamba	..	..	..	..	..	..	..	..	..	21	13	8	5	22
Letatan	..	..	..	..	..	..	..	..	..	23	19	13	7	20
Lemasong	..	..	..	..	..	..	..	..	..	43	38	15	15	52
Konnos	..	..	..	..	..	..	..	..	..	47	20	15	12	25
Konobin	..	..	..	..	..	..	..	..	..	27	12	4	3	21
Pinigindu	..	..	..	..	..	..	..	..	..	48	49	16	9	60
Tekirot	..	..	..	..	..	..	..	..	..	22	17	8	2	13
Katendan	..	..	..	..	..	..	..	..	..	22	21	8	6	25
Lambuso	..	..	..	..	..	..	..	..	..	35	22	4	4	21
Malom	..	..	..	..	..	..	..	..	..	49	40	18	14	51
Lasigi	..	..	..	..	..	..	..	..	..	16	30	7	8	26
Watkana	..	..	..	..	..	..	..	..	..	45	48	13	7	46
Kanagnuagnus	..	..	..	..	..	..	..	..	..	4	4	2	3	9
Livinko	..	..	..	..	..	..	..	..	..	22	20	2	1	15
Kandan	..	..	..	..	..	..	..	..	..	19	11	3	4	15
Limbin	..	..	..	..	..	..	..	..	..	49	35	5	12	35
Kamabu	..	..	..	..	..	..	..	..	..	19	17	5	2	16
Bumbawe	..	..	..	..	..	..	..	..	..	20	20	3	6	16
Lemaris	..	..	..	..	..	..	..	..	..	20	13	4	2	12
Kanamibu	..	..	..	..	..	..	..	..	..	32	17	4	3	23
Watlamo	..	..	..	..	..	..	..	..	..	16	19	4	4	23
Panatgin	..	..	..	..	..	..	..	..	..	27	15	1	5	15
Dabinot	..	..	..	..	..	..	..	..	..	13	15	5	8	22
Silom	..	..	..	..	..	..	..	..	..	11	14	..	5	15
Katenda	..	..	..	..	..	..	..	..	..	12	9	4	3	15
Bulu	..	..	..	..	..	..	..	..	..	19	8	8	3	8
Logon	..	..	..	..	..	..	..	..	..	19	15	9	13	31
Kanam	..	..	..	..	..	..	..	..	..	13	14	7	2	17
Karu	..	..	..	..	..	..	..	..	..	30	20	7	8	32

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D Hawk.				E Harok.				F Frigate Bird.				G Kest.				
Adults.		Children.		Adults.		Children.		Adults.		Children.		Adults.		Children.		Adu
♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂
..	..	..	..	..	..	..	..	..	..	..	..	6	4	2	1	..
..	..	..	..	..	..	..	..	14	3	3	2	17	10	6	4	22
..	..	..	..	..	..	..	..	..	..	..	..	12	8	2	2	11
..	..	..	..	..	..	..	..	..	..	..	..	51	26	12	5	..
..	..	..	..	..	..	..	..	5	1	..	..	17	11	5	5	..
..	..	..	..	..	..	..	..	..	..	..	..	17	5	..	1	..
..	..	..	..	..	..	..	..	..	..	..	..	9	10	3	6	1
..	..	..	..	..	..	..	..	16	5	1	5	18	14	10	8	1
1	3	2	3	..	..	..	..	14	5	1	..	8	10	3	1	12
..	..	..	..	2	1	1	..	9	3	1	0	11	4	1	1	7
1	..	..	..	..	..	..	..	12	7	5	0	5	..	..	..	8
1	1	..	..	..	..	..	..	17	6	3	1	2	2	1	..	3
1	1	1	..	..	..	..	..	19	20	7	10	2	1	..	1	27
5	2	..	1	2	1	..	..	9	9	3	2	4	1	1	..	3
..	..	..	..	..	3	1	..	20	5	0	3	2	1	..	2	10
10	9	2	1	13	12	5	3	1	..	..	..	5	2	1	..	23
15	14	1	5	..	1	..	..	..	..	..	..	9	3	..	..	15
16	11	1	1	1	..	..	..	..	..	..	..	5	5	1	1	15
17	16	14	10	..	..	..	..	2	..	..	1	1	..	..	..	15
6	3	3	4	..	2	..	3	1	1	..	1	..	..	..	..	13
13	9	9	9	..	1	..	..	4	5	1	2	..	..	..	..	19
19	12	4	4	..	..	..	..	5	3	1	..	3	2	..	..	5
13	14	1	6	11	9	3	5	..	..	..	..	4	1	..	..	12
20	14	7	7	15	8	2	2	1	3	..	..	..	..	..	..	12
1	1	2	1	14	8	2	6	1	..	..	..	..	1	3	2	..
33	18	4	7	5	6	..	3	10	11	4	5	21	9	12	5	6
6	..	..	..	6	4	1	3	20	16	6	8	25	20	4	7	1
..	1	..	2	2	2	1	..	8	18	8	11	27	10	2	..	..
8	3	3	3	7	4	2	2	23	7	5	4	32	26	6	12	1
15	12	5	3	18	16	9	11	6	3	2	2	21	15	6	7	..
8	10	1	5	4	7	3	3	2	1	..	..	2	1	..	2	..
1	..	..	..	13	9	8	4	29	23	9	7	..	..	..	..	..
8	3	5	1	1	..	..	..	20	13	4	3	2	..	..	1	..
17	18	9	5	3	1	1	1	34	34	7	16	..	..	..	..	..
21	21	8	14	..	..	..	..	..	..	..	..	..	..	..	..	..
25	20	7	9	..	..	..	..	..	..	..	..	..	..	..	..	..
41	23	11	8	..	..	..	..	..	..	..	..	..	..	..	..	..
10	15	9	5	..	..	..	..	..	..	..	..	..	..	..	..	..
35	19	10	11	..	..	..	..	..	..	..	..	..	..	..	..	..
45	45	20	18	..	..	..	..	..	..	..	..	..	..	..	..	..
22	12	10	1	..	..	..	..	..	..	..	..	..	..	..	..	..
20	16	6	10	..	..	..	..	..	..	..	..	..	..	..	..	..
52	30	10	10	..	..	..	..	..	..	..	..	..	..	..	..	..
25	34	13	11	..	..	..	..	..	..	..	..	..	..	..	..	..
21	17	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..
60	42	10	11	..	..	..	..	..	..	..	..	..	..	..	..	..
13	13	8	8	..	..	..	..	..	..	..	..	..	..	..	..	..
25	16	4	6	..	..	..	..	..	..	..	..	..	..	..	..	..
31	27	12	10	..	..	..	..	..	..	..	..	..	..	..	..	..
51	39	17	17	..	..	..	..	..	..	..	..	..	..	..	..	..
26	21	5	10	..	..	..	..	..	..	..	..	..	..	..	..	..
46	34	10	4	..	..	..	..	..	..	..	..	..	..	..	..	..
9	8	6	1	..	..	..	..	..	..	..	..	..	..	..	..	..
15	17	9	6	..	..	..	..	..	..	..	..	..	..	..	..	..
15	10	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..
35	26	8	11	..	..	..	..	..	..	..	..	..	..	..	..	..
16	14	8	4	..	..	..	..	..	..	..	..	..	..	..	..	..
16	12	5	3	..	..	..	..	..	..	..	..	..	..	..	..	..
12	10	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23	20	19	9	..	..	..	..	..	..	..	..	..	..	..	..	..
23	14	5	5	..	..	..	..	..	..	..	..	..	..	..	..	..
15	14	8	3	..	..	..	..	..	..	..	..	..	..	..	..	..
22	7	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..
15	10	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..
15	14	5	6	..	..	..	..	..	..	..	..	..	..	..	..	..
8	11	6	5	..	..	..	..	..	..	..	..	..	..	..	..	..
31	17	6	14	..	..	..	..	..	..	..	..	..	..	..	..	..
17	12	4	7	..	..	..	..	..	..	..	..	..	..	..	..	..
32	18	10	9	..	..	..	..	..	..	..	..	..	..	..	..	..

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APPENDIX II.

DISTRIBUTION OF CLANS.

H TUTUT				I KIKIAK.				J KANAI				K WAI-IA				
Adults.		Children.		Adults.		Children.		Adults.		Children		Adults.		Children.		
♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂
..	4	2	1	..	..	..	..	..	..	..	..	..	..	..	2	..
22	13	3	3	..	..	..	..	..	..	..	..	10	4	3	4	..
11	6	3	3	..	..	..	..	..	..	..	..	2	3	2	0	..
..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
12	8	7	4	..	..	..	..	..	..	..	..	..	..	..	..	..
7	7	6	3	..	..	..	..	..	..	..	..	4	2	..	..	..
8	7	1	..	..	..	..	..	..	..	..	..	4	4	1	1	..
3	10	..	2	..	..	..	..	..	..	..	..	6	5	1	1	..
27	12	6	6	..	..	..	..	..	..	..	..	6	6	6	7	..
3	3	1	..	..	..	..	..	..	..	..	..	16	13	6	2	..
10	5	3	5	..	..	..	..	..	..	..	..	..	1	..	..	..
23	20	4	2	..	..	..	..	..	..	..	..	8	2	1	1	..
15	14	11	4	..	..	..	..	..	..	..	..	2	4	..	3	..
15	16	3	7	..	..	..	..	..	..	..	..	1	..	..	..	..
15	9	7	7	..	..	..	..	..	..	..	..	3	2	0	1	1
13	4	2	5	..	..	..	..	..	..	..	..	..	..	..	..	..
19	9	10	3	..	..	..	..	..	..	..	..	..	..	..	..	..
5	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12	6	..	1	..	..	..	..	..	..	..	..	7	..	..	..	..
12	8	1	2	..	..	..	..	..	3	2	2	..	..	..	..	..
..	2	1	..	..	..	..	..	1	3	2	2	..	..	..	..	..
6	11	7	4	..	..	..	..	..	1	1	..	2	1	..	..	..
1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..
1	..	..	..	..	..	..	..	..	1	..	..	..	1	4	2	..
..	1	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..

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L				M AWUT.				N TIU.				O CRAB.				
Adults.		Children.		Adults.		Children.		Adults.		Children.		Adults.		Children.		Ad
♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
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..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	16	12	8	4	..
..	..	..	..	..	..	..	..	..	..	..	..	4	4	1	2	..
..	..	..	..	..	..	..	..	..	..	..	..	2	4	0	1	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	..	..	1	1	..	..	..	..	..	..	1	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..

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Dress. Adults ♂	Dress. Adults ♀	Dress. Children ♂	Dress. Children ♀	Population of Village Clans. Unnamed.
..	..	..	..	55 8
..	..	..	..	139 ..
..	..	..	..	74 3
..	..	..	..	206 11
..	..	..	..	104 ..
..	..	..	..	68 1
..	..	..	..	51 ..
..	1	..	..	114 2
..	..	..	..	86 2
5	5	3	3	83 ..
..	..	..	..	80 ..
..	..	..	..	78 3
..	..	..	..	163 2
..	..	..	..	98 1
..	..	..	..	115 ..
..	..	..	..	145 ..
..	..	..	..	112 ..
..	..	..	..	113 2
..	..	..	..	118 ..
..	..	..	..	70 ..
..	..	..	..	103 ..
..	..	..	..	76 ..
..	..	..	..	127 4
..	..	..	..	113 ..
..	..	..	..	86 ..
..	..	..	..	240 2
..	..	..	..	195 ..
..	..	..	..	107 ..
..	..	..	..	185 2
..	..	..	..	221 ..
..	..	..	..	170 2
..	..	..	..	203 3
..	..	..	..	109 ..
..	..	..	..	294 17
..	..	..	..	119 5
..	..	..	..	124 9
..	..	..	..	161 ..
..	..	..	..	75 ..
..	..	..	..	141 ..
..	..	..	..	259 ..
..	..	..	..	92 4
..	..	..	..	114 ..
..	..	..	..	213 2
..	..	..	..	177 ..
..	..	..	..	90 ..
..	..	..	..	245 ..
..	..	..	..	91 ..
..	..	..	..	108 ..
..	..	..	..	145 ..
..	..	..	..	243 ..
..	..	..	..	123 ..
..	..	..	..	207 ..
..	..	..	..	37 ..
..	..	..	..	92 ..
..	..	..	..	68 ..
..	..	..	..	181 ..
..	..	..	..	85 ..
..	..	..	..	85 ..
..	..	..	..	63 ..
..	..	..	..	127 ..
..	..	..	..	90 ..
..	..	..	..	88 ..
..	..	..	..	76 ..
..	..	..	..	61 ..
..	..	..	..	68 ..
..	..	..	..	68 ..
..	..	..	..	124 2
..	..	..	..	76 ..
..	..	..	..	134 ..

SUMMARY OF CLANS.

	Adults. ♂	Adults. ♀	Children ♂	Children ♀	Total.
A ..	66	51	24	22	
B ..	321	239	86	105	
C ..	1,076	833	310	261	
D ..	1,123	850	363	330	
E ..	115	95	39	48	
F ..	302	202	71	83	
G ..	338	200	83	74	
H ..	242	184	85	66	
I ..	..	..	..	..	
J ..	2	9	5	5	
K ..	72	48	21	22	
L ..	1	..	..	..	
M ..	1	1	..	..	
N ..	1	..	..	..	
O ..	23	20	9	7	
P ..	5	6	5	3	
Total ..	3,688	2,738	1,101	1,026	8,553
Unknown Clans					92
					8,645

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